Cisco's new security appliances spur a debate on who's really responsible for securing networks.

He's back! IT nemesis Nicholas G. Carr says corporate IT is doomed to go the way of the electric generator.

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Biometrics: BACK to Business

MANUELLO PAGANELLI

Phil Fowler, IT chief at Telesis Community Credit Union, found that 80% of employee passwords could be cracked in 30 seconds. That's when he turned to biometrics for system access control. PAGE 19

Emerging ASP Model Targets Health Records

Hospitals, large physician groups offer small practices hosted access to e-records systems

BY HEATHER HAVENSTEIN

As electronic medical records take center stage in the effort to eliminate errors by physicians and bolster patient care, the newest players trying to tap the emerging software market are health care providers themselves.

Several large groups of physicians are gearing up to offer smaller medical practices access to the EMR software they use, via an application service provider type of model. Their goals are to generate revenue and to make it easier to share patient information with other physicians.

ONLINE

Go to our Web site for more health care IT coverage: QUICKLINK a5850

For example, Morgan Haugh Medical Group, a multispecialty practice in Paducah, Ky., has begun discussions with other doctors in that state about providing them with hosted access to its ambulatory care EMR system from San Francisco-based McKesson Corp.

Eventually, the group also plans to open up the system to medical practices in Tennessee, Illinois and Missouri, said Joe Paul, director of information systems at Morgan Haugh. "If all you're going to do is see people coming in with colds and flu . . . you are limiting yourself to what types of revenue you may bring in," he said.

The group will handle set-

Health Records, page 14

Oracle Moves to Upgrade Support for Database Users

Expands support windows, adds online tools

BY MARC L. SONGINI
ORLANDO

Looking to keep its installed base happy, Oracle Corp. has quietly begun a number of educational and technical initiatives in recent months to beef up its database and application server support offerings.

At last week's International Oracle Users Group Live 2005 database user conference here, newly installed Oracle CIO David Thompson highlighted updates to maintenance policies that have been added gradually since late last year.

He also detailed new features that the company has added to its MetaLink online support system, such as live Web conferencing.

Users at the IOUG event were generally upbeat about the support changes, although some said they have found the way Oracle distributes its software patches and security fixes to be troublesome.

Oracle, page 41

MORE INSIDE

IT veterans say user group membership offers big paybacks for your organization – and your career. **Page 29**

Missing Backup Tapes Spur Encryption at Time Warner

Data security boost follows loss of info on 600,000 employees

BY LUCAS MEARIAN

Time Warner Inc. last week said it will "quickly" begin encrypting all data saved to backup tapes, after 40 tapes with personal information on about 600,000 current and former employees were lost in transit to a storage facility.

The incident is among the biggest in a string of recent data-security mishaps that have also affected companies such as ChoicePoint Inc., Bank of America Corp. and Reed Elsevier Group PLC's LexisNexis Group unit.

A shipping container that

Missing Tapes, page 14

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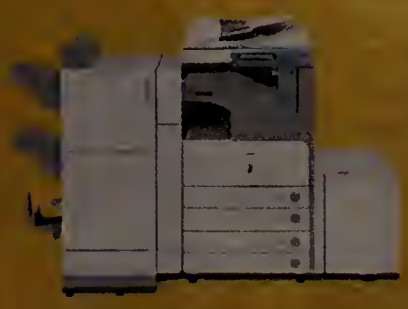

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A Broader View

Also in the Management section: You can learn technology from a book or from formal education, but veteran IT professionals say user group membership can offer bigger payback for your organization and your carecr. **Page 29**

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6 **EMC plans** to release a mid-range Centera array offering half the capacity of the high-end model at 65% of the cost.

7 **At Interop**, new Cisco devices spark a debate over whether IT execs or service providers are responsible for network security. Also, a vendor group details a proposed network access control standard.

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How Spies Operate

SECURITY: In an excerpt from his book *Spies Among Us*, Ira Winkler presents the story of two Russian hackers who applied their skills to steal thousands of credit card numbers and to later extort U.S. companies. **QuickLink 54094**

Taming HIPAA

IT MANAGEMENT: Health care companies should enter into business associate agreements with their IT vendors to safeguard patient data as demanded by HIPAA, says attorney John A. Gliedman. **QuickLink 54073**

First Look: Apple's Fastest Power Mac Yet

MACINTOSH: Apple has updated its Power Mac G5s, and *Computerworld.com*'s Ken Mingis couldn't resist the siren song of speed offered by the top-end model, which sports dual 2.7-GHz G5 processors, a faster SuperDrive and more storage. **QuickLink 54140**

Bonding With Your New Boss

CAREERS: Adjusting to an unfamiliar supervisor can be unsettling, but it also offers a chance for a fresh start, suggests columnist Katherine Spencer Lee. **QuickLink 53868**

Intelligent Infrastructure

STORAGE WEBCAST: How should storage managers tackle virtualization projects? According to EMC's Mark Lewis, they should start by identifying pain points before attempting innovation. Register for this free webcast at **QuickLink a5840**

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AT DEADLINE

IBM Plans to Lay Off 13,000 Workers

IBM plans to cut 10,000 to 13,000 jobs, or up to 4% of its workforce, mostly from its European operations. IBM last month reported poor earnings, and the restructuring is projected to cut costs by up to $500 million during the rest of 2005, and by $1 billion in 2006. IBM will take a $1.3 billion to $1.7 billion pretax charge in the second quarter.

Siebel to Add SOA, Component System

Siebel Systems Inc. has detailed plans to roll out a new branch of CRM offerings later this year as industry-standard prefabricated components. The component-based systems, based on a service-oriented architecture, will run on multiple server hardware, portal and database platforms. The components are expected to be available by year's end.

Capgemini Makes Cuts in N. America

Capgemini outlined plans to restructure its North American operation – including 200 job cuts and the shuttering of more than half of its 40 U.S. offices. The cutbacks should yield $162.1 million in annual savings once the effort is completed by early July. Capgemini reported a 16% jump in first-quarter revenue to $2.2 billion. (Read a Q&A with Capgemini's COO at QuickLink 54212.)

IBM to Unveil Array, Storage Controller

IBM today plans to unveil a new 4Gbit/sec. midrange storage array. The IBM TotalStorage DS-4800 can perform 42,000 I/Os per second and is priced from about $54,000. It will be generally available June 17. IBM will also introduce Version 2.1.1 of its SAN Volume Controller virtualization appliance. It starts at $44,500 and has a May 13 ship date.

Solaris 10 Downloads Grow, but Usage Unclear

Jury is still out on whether customers will install the OS

BY PATRICK THIBODEAU
WASHINGTON

AT ITS quarterly product-launch announcement here last week, Sun Microsystems Inc. touted the fact that there have been 1.3 million downloads of Solaris 10 since the operating system was released last November.

Sun officials said they are pleased with the pace of the downloads. But John Loiacono, executive vice president of the company's software group, said in an interview that it's difficult to know precisely what users are doing with the operating system.

Until Sun releases the first update of Solaris 10 later this year and then maps installations of that version back to users who previously downloaded the software, "it's hard to tell whether someone is just kicking the tires or it's a new installation," Loiacono said.

Gerry Vest, systems administrator at the Southwest Foundation for Biomedical Research in San Antonio, is testing Solaris 10. Vest has just begun the process, but he said he's seeing promised performance improvements as a result of Sun's rewrite of the operating system's TCP/IP stack.

The research lab is running Solaris 8 in production, and Vest said he expects to move to the new operating system within six months. He added that eventually he will likely run Solaris 10 on about 700 dual-CPU servers equipped with Advanced Micro Devices Inc.'s Athlon processors.

IDC analyst Dan Kusnetzky said that although Sun might be happy with the volume of downloads thus far, "a download doesn't translate to production use." He said Sun needs to show that new customers are adopting Solaris 10 and that open-source developers are working with the software, which is being released under a royalty-free license.

Sun officials last week also put the spotlight on grid computing, an area the company is focusing on heavily as both a utilitylike service and a technology offering for internal deployments. Sun is launching a "sneak peek" program for its Sun Grid Compute Utility, which will let users buy CPU cycles on an hourly basis. The service is due to become available in the summer, along with an offering that provides storage for a monthly fee.

Sun said users that want to run computationally intensive applications, batch processes and other jobs that aren't transaction-based have expressed interest in the utility model.

For now, though, company officials don't think users are ready to adopt Sun Grid for transaction processing.

James Kennedy, a strategic programs system engineer at the national headquarters of the American Red Cross in Falls Church, Va., said he found Sun's N1 grid technology attractive for internal use. But running applications on a utility basis poses problems because of regulatory and security concerns, he added.

Among the products that Sun announced were N1 System Manager, a tool that supports the company's hardware, and an upgraded version of its N1 Service Provisioning System. Loiacono indicated last month that the N1 products would be rolled out soon [QuickLink 53774].

One person who has seen the new system management software is John Groenveld, an associate research engineer at Pennsylvania State University's Applied Research Laboratory. N1 System Manager allows users "to treat a cluster of systems almost like a mainframe," he said. **54249**

More From Sun

Sun Connection: An online portal that gives users access to software updates and predictive diagnostics tools. Initially supports Solaris 10 updates only

Java StorEdge Software: Subscription based pricing for Sun's storage management tools, starting at an annual price of $350 per employee or $400,000 for 5TB of storage.

Sun Grid Rack System: Preintegrated racks of servers and software for grid computing. Pricing starts at about $77,000.

EMC Unveils Midrange Centera

Trims capacity, price of array

BY LUCAS MEARIAN

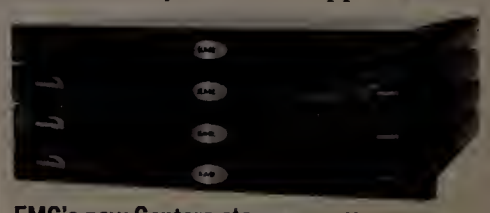
EMC Corp. today will unveil its first midrange Centera content addressed storage (CAS) array, which offers the same functionality as its bigger and more expensive brother with only half the capacity — 2.2TB.

The new Centera uses the same internal architecture as the high-end Centera system: a redundant array of independent nodes that marries one Intel processor to each tray of four disk drives.

The new rack-mountable Centera can be configured for both storage and access.

The midrange system is the first major hardware change in EMC's CAS system line since the high-end Centera was first brought out in April 2002.

"This will allow [small and midsize businesses] to use an archiving system to finally get their data in a sustainable state, and where they're not backing up the same data all the time," said Anne MacFarland, an analyst at The Clipper Group Inc. in Wellesley, Mass.



EMC's new Centera storage array

The new box also incorporates the Advanced Technology Attachment disk drives that the high-end model uses.

Arun Taneja, an analyst at Taneja Group Inc. in Hopkinton, Mass., said price/performance improvements in future midrange systems may one day make the high-end offering obsolete.

To guard against that, EMC's marketing scheme doesn't offer expandability beyond the new system's four nodes.

"In the next two or three months, EMC will face pressure from the marketplace to make this product upgradable from four to eight nodes," Taneja said.

Like the original Centera, the new box comes with remote replication, file indexing and search capabilities, as well as several bundled software systems that can archive data to meet regulatory requirements.

Roy Sanford, vice president of CAS at EMC, said the new Centera is also available bundled with e-mail archiving software, such as EMC's Legato DiskXtender and EmailXtender.

Sanford declined to disclose specific pricing plans but said the new model will cost about 35% less than the high-end one, which starts at about $148,000. "This will be sub-$100,000," Sanford said. **54250**

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Fixed LAN Ports	2xFE	2xFE	2xFE
WAN Interface Slots	n/a	6 Open Slots	6 Open Slots
Fixed WAN Interfaces	2xT1 or 2xE1 or 2xSerial	n/a	n/a
WAN Interface Modules	n/a	2xT1/2xE1/ 2xSerial/2xFE	2xT1/2xE1/ 2xSerial/2xFE/DS3
Memory	256 or 512 MB DRAM	256 or 512 MB DRAM	256/512/1024 MB DRAM
Redundancy	No	No	Power
Additional Software Licenses	Stateful Firewall, IPSec, J-Flow Accounting, BGP Route Reflector	Stateful Firewall, IPSec, J-Flow Accounting, BGP Route Reflector	Stateful Firewall, IPSec, J-Flow Accounting, BGP Route Reflector

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New Cisco Appliances Drive Debate on Network Security

IT execs weigh use of internal tools vs. external protection

BY MATT HAMBLEN
LAS VEGAS

Network security became a major topic of debate at last week's Interop conference, with differences of opinion emerging among networking vendors, service providers and users over where security tools should be applied and who should provide them.

Cisco Systems Inc. used the conference to announce a line of multifunction security appliances for defending against network threats. But Hossein Eslambolchi, AT&T Corp.'s CIO and chief technology officer, responded that the proper place to defend against security threats is in the WAN backbones controlled by his company and other service providers. That can stop attacks from reaching corporate boundaries, Eslambolchi said.

Some network managers at the conference said IT security is so important that it requires both internal technology they can control and reliable external protections from network operators.

"You need both," said Andre Gold, director of information security at Houston-based Continental Airlines Inc., which has been testing Cisco's new Adaptive Security Appliance 5540 for the past six months. At $16,995, the 5540 is the most expensive of the three ASA devices that Cisco plans to ship this month.

Gold said he is still evaluating whether to use the 5540. "It's not easy to set up," he noted. Nonetheless, he said Cisco's ASA concept is "very, very appealing" because it addresses network security management in a single box.

"AT&T and others should be in the network pipeline protecting against threats. I want my provider to do that."

IRVING TYLER, CIO, Quaker Chemical

The ASA 5500 line incorporates features from Cisco's firewall, intrusion-prevention and virtual private network products and also supports routing, multicasting and quality-of-service capabilities.

Jayshree Vullal, senior vice president of Cisco's security technology group, said the security features in the appliances will eventually work their way into the company's routers and switches, but she declined to disclose a detailed road map.

The ASA offering doesn't interest Irving Tyler, CIO at Quaker Chemical Corp. in Conshohocken, Pa. Tyler needs to protect network connections for 300 remote users globally and manage networks serving 15 offices.

Products like the ASA line are "not a priority," he said. "AT&T and others should be in the network pipeline protecting against threats. I want my provider to do that."

Tyler likened receiving data over global networks to getting water in pipes at his home, saying he expects a certain level of purity so he won't have to "run around and install filters on every faucet."

On the other hand, Jerry Knaus, senior manager of IT infrastructure at Jeppesen Sanderson Inc. in Englewood, Colo., said Cisco's appliances or similar products might be useful because the subsidiary of The Boeing Co. doesn't want to rely too heavily on network service providers to defend it against attacks.

"I'm not comfortable with relying on my service provider for security, since we're transferring important business knowledge such as flight plans and flight data all the time," Knaus said. "We need to feel more of a sense of control."

Andrew Braunberg, an analyst at Current Analysis Inc. in Sterling, Va., said Cisco's ASA rollout follows introductions of similar appliances by several security vendors over the past two years. The new offering is significant because of Cisco's size and market clout, Braunberg said. But he questioned whether large enterprises would use the ASA technology, because its firewall throughput is a relatively slow 650Mbit/sec. **54248**

DO IT YOURSELF

AT&T plans to rely on its own software to secure its global IP network:

QuickLink 54254
www.computerworld.com

Vendor Group Adds Net Access Specs

BY JAIKUMAR VIJAYAN

A proposed network access control standard, developed by a large group of vendors that includes IBM, Intel Corp. and Microsoft Corp., could soon help give IT managers a set of vendor-neutral tools for enforcing security policies on end-user devices.

The Trusted Network Connect (TNC) specifications were detailed at last week's Interop conference in Las Vegas. Also announced at the show were a pair of application programming interfaces (API) that vendors can use to develop TNC-based tools, as well as plans for the first products implementing the standard.

Like similar approaches from individual vendors such as Cisco Systems Inc. and Microsoft, TNC will let IT managers set rules to permit, restrict or deny network access to end users, depending on whether their systems have the required firewalls, antivirus tools, software updates and configuration settings.

Such capabilities are crucial for avoiding attacks launched via compromised PCs and mobile systems, said Ahmed El-Haggan, CIO at Coppin State University in Baltimore. "It's great to be able to take care of a security problem at the network level before it reaches my servers and my applications," he said.

The core difference between TNC and approaches such as Cisco's Network Admission Control program is that TNC is designed for networks built around products from multiple vendors.

The Portland, Ore.-based Trusted Computing Group developed TNC and plans to release at least four more APIs over the next several months, said Thomas Hardjono, co-chairman of the organization's infrastructure working group.

The interfaces will give vendors a standard way to capture, share and verify the various pieces of information that are needed to authenticate client devices and ensure that they comply with security policies, said Hardjono, a principal scientist at VeriSign Inc.

Hardjono's group is also working to refine specifications for a hardware component called the Trusted Platform Module, a microcontroller that can store passwords, digital certificates and configuration data for identifying and attesting to the security of client systems.

But the group can't afford to "waste 18 months squabbling among themselves about the finer points of their standard," said Jim Slaby, an analyst at The Yankee Group in Boston. "I think there's a lot of time pressure on them. There's a bit of a race to get endpoint policy enforcement schemes out in the market."

Trusted Network Connect

WHAT IT IS: A vendor-neutral standard designed to give IT managers tools for enforcing network security polices on client devices.

HOW IT WORKS: Software agents collect information on the security status of end-user devices and relay it to servers that assess compliance with corporate policies.

At Interop, for example, Juniper Networks Inc. outlined a broad network security framework that it plans to fill out over the next few years [QuickLink 54103].

And another vendor, Nortel Networks Ltd., has also announced technologies that let its customers enforce network access control policies.

Funk Software Inc., a Cambridge, Mass.-based company that helped develop TNC, last week said it's building support for the specifications into its Steel-Belted Radius/Endpoint Assurance server and its 802.1x-based Odyssey Client software agent. Those products are due to be available for user trials late this month.

McAfee Inc. and Check Point Software Technologies Ltd. also demonstrated support for TNC last week.

Hardjono noted that a total of seven vendors have already said they will implement the standard in products. **54251**

BRIEFS

Juniper, Avaya Sign Development Pact

Router maker Juniper Networks Inc. and Avaya Inc., a developer of enterprise IP telephony gear, have signed an agreement to jointly develop, sell and support new products. Details of the agreement, including the type of products to be developed, are still being worked out. This latest pact between the two companies extends an earlier partnership.

Oracle to Buy Indian Development Sites

Oracle Corp. has agreed to exercise its options to purchase two PeopleSoft development centers in Bangalore, India. Financial terms of the deal weren't disclosed. The centers are operated by outsourcing services companies Hexaware Technologies Ltd. and Covansys Corp. Workers at the centers will become Oracle employees after the close of the deal, which is expected in October.

Nortel Q4 Sales, Profits Down

Nortel Networks Corp. profits fell 75% in the fourth quarter of 2004 on a sales decline of 20%. Officials project improving financial results through 2005.

NORTEL BY THE NUMBERS

	REVENUE	PROFIT
Q4 '05	$2.62B	$133M
Q4 '04	$3.27B	$528M

HP Pays $325M To Settle EMC Suit

Hewlett-Packard Co. and EMC Corp. have signed a five-year patent cross-licensing deal that will end four years of litigation between the two companies. The settlement calls for HP to pay EMC $325 million over five years for the purchase of EMC software for internal use or resale. The patent infringement litigation began in 2000 when EMC sued StorageApps Inc., which HP acquired a year later. HP filed a retaliatory lawsuit in 2002.

BI Vendor CEO Blasts Gates' Position on H-1B

No need to eliminate cap on visas, claims Information Builders' Cohen

BY DON TENNANT

Gerald Cohen, *the outspoken founder and CEO of New York-based business intelligence software vendor Information Builders Inc., spoke with* Computerworld *late last month about the controversy surrounding offshore outsourcing and the H-1B visa program. Excerpts follow:*

Bill Gates told an audience in Washington recently that the U.S. needs to get rid of the cap on H-1B visas. What's your position on that? He's full of it. He says, "I'd hire a lot more American engineers if I could find them — they're not available, and that's why we're going to China and India." He's going there because it's just cheaper. He can find all the engineers he wants in this country.

A lot of CEOs at companies like yours are saying that they just can't find the people. That's bull. You know who wants [to get rid of the cap]? The Indian companies. The way the Indian companies work is they have to have a certain number of people here, and a lot more people back there — so they're the ones who want to get all these people in. And they don't even pay them American wages — they just pay them as cheaply as they can.

But surely you use overseas labor to lower your own costs. I'm going to put two hats on. With one hat, I say we want to keep jobs in New York City. The other hat says that we want the company to be prosperous, and if I can lower my costs by doing work overseas, the company's more prosperous. But I'm not so sure that's better for the country.

How much of your development work is done outside of the U.S.? We do a little quality-assurance work outside of the U.S. We find it's economical to do the routine kind of QA work [overseas].

What's your response to the unemployed U.S. IT worker who says you should be keeping those jobs in the U.S.? We have to [do business] economically. It's a real problem. The government is providing us with no help, so we're doing [what we have to do] ourselves.

If you look further down the road, there's going to be a huge drain of IT jobs. A lot of these jobs that go overseas are the spawning grounds for future jobs. So the whole industry's going to move offshore.

What do you want the government to do to help? [Indian vendors] will bring people into the U.S. cheaply. No! When you [bring people into] the U.S., you have to pay American wages. That would be a minimum standard, for example.

There are a lot of small things that could be done, but I have no solution for how we're going to throttle this in some way.

A lot of people say the education system in the U.S. is failing to provide qualified IT workers. Do you disagree? That's bunk. Why do you have declining computer science majors? Because every parent is saying, "Why major in computer science when all the jobs are going offshore?" It feeds itself.

And I guarantee you, if it doesn't stop, in a couple years, you're not going to have much of an IT industry here. **54191**

MORE ON THIS TOPIC

In this issue: Don Tennant discusses Cohen's candor. **Page 16**

More online: Go to our Web site for an expanded version of this interview:

QuickLink 54143
www.computerworld.com

Government to Add 20,000 H-1B Visas

The extra visas were approved last fall by Congress

BY PATRICK THIBODEAU

Federal officials will finally open the doors to an additional 20,000 foreign workers under the H-1B visa program beginning Thursday, the U.S. Citizenship and Immigration Services (USCIS) agency announced last week.

The start of the application process for the new visas comes after a two-month delay and some controversy over the eligibility requirements for applicants. The USCIS, which sets immigration policies and rules on visa and naturalization petitions, said the visas will be granted only to foreigners who have at least a master's-level degree from a U.S. academic institution.

That reverses the immigration service's initial position on who would be eligible. The agency had said in March that it was considering opening the extra H-1B slots to any qualified foreign national — not just those holding advanced degrees from U.S. universities.

But the agency's earlier stance was contrary to the intent of the eligibility language that Congress inserted last fall in the legislation that created the 20,000 additional visas, according to Sandra Boyd, who heads Compete America, a Washington-based lobbying group that represents more than 200 corporations and universities. The group backs the H-1B program as a means of ensuring that U.S. businesses can hire skilled professionals from other countries.

Interpreting Language

Boyd, who is also vice president of human resources policy at the National Association of Manufacturers, said the USCIS made the "right interpretation" of the H-1B Visa Reform Act in the regulations that will be published in the Federal Register this week.

She added that the agency's apparent indecision over how to handle the visa allocation process created uncertainties for employers as well as prospective visa holders.

"There was a lot of confusion about whether people would be offered jobs," Boyd said. "It made it impossible to plan, and it all seemed pretty unnecessary."

Christopher Bentley, a spokesman for the USCIS, said that as the agency continued its review of the new law, "we came to the realization that this was not the intent of Congress" to allow workers without an advanced degree to get the added visas.

Congress approved the additional visas after IT vendors and other H-1B supporters complained that the 65,000-visa cap in place for the government's current fiscal year was too low to meet demand. All of the visas available under the cap were taken by last Oct. 1, the first day of fiscal 2005. The USCIS said last week that the extra visas will also be available in future fiscal years and will be exempt from the regular cap. **54224**

IBM Details Its Plans for Ascential

Users hope for smooth integration

BY HEATHER HAVENSTEIN
WESTBORO, MASS.

IBM last week detailed plans for folding Ascential Software Corp.'s integration and data-cleansing technology into its information management offerings. IBM closed its $1.1 billion acquisition of Ascential late last month.

At a press event here last week, IBM unveiled the WebSphere Data Integration Suite, which is based on an integration platform code-named Hawk that had been under development at Ascential.

Over the long term, IBM plans to use the Ascential technology, along with its own, to help users access data that has been mostly inaccessible because it was created as part of technology silos, said Janet Perna, IBM's general manager of information management.

The Ascential technology can "open up this integration environment to end users . . . to be able to more easily access the information they need," she said.

Such tools are important for companies as they consolidate information and processes from applications, said Judith Hurwitz, president of Hurwitz & Associates, an IT research firm in Waltham, Mass.

Klaus Mikkelsen, global development leader at Ascential user Owens Corning, a Toledo, Ohio-based manufacturer of building materials, said he is hopeful that the IBM plan can help his company.

"The transition plan . . . seems to be the right thing to focus on, but I would be concerned that the integration efforts under way will limit near-term product development and enhancements," Mikkelsen said.

Owens Corning uses integration technology from Ascential combined with business intelligence software to generate daily gross margins from multiple ERP systems.

The WebSphere Data Integration Suite, expected to ship to beta users within six weeks, will offer a new user interface and new metadata profiling capabilities. The suite will be generally available this fall.

John Jaye, first vice president at ABN Amro Holding NV, a financial services firm in Amsterdam, said that he is pleased that IBM preserved the Hawk product. ABN uses DataStage TX to integrate with its customers and partner banks to support global payment transactional processing.

"The high-level road map seems solid," Jaye said, adding that IBM's plans to use Ascential technology to help it integrate some of its other software products could benefit his company. ABN Amro uses WebSphere Application Server and IBM MQSeries. Jaye called on IBM to provide more details on how it will dovetail the product lines.

Kris Williams, program manager of electronic commerce at Skyworks Solutions Inc., a Woburn, Mass.-based semiconductor company, also said he is encouraged that IBM will continue to follow Ascential's plans for the Hawk platform. Skyworks, formerly Alpha Industries, used Ascential's DataStage TX to help integrate its e-commerce systems with those from Conexant when the companies merged in 2002.

Williams also said that he would like to see IBM expand the integration between DataStage and IBM products.

"We'd like to see . . . integration between products like Domino, Lotus Notes and DataStage," he said.

Perna said the IBM plan also calls for building a single repository architecture — including metadata discovery, exchange and management — that will incorporate existing IBM products and a set of tools that are based on Eclipse for WebSphere Business Integration and DataStage TX. The company didn't provide specific dates for the future additions. 54230

IBM Information Integration Road Map

CURRENT INTEGRATION CAPABILITIES

- Ascential transformation library accessible from WebSphere Information Integrator and WebSphere Business Integration.
- Unified service-oriented architecture across WebSphere Information Integration, WebSphere Business Integration and Ascential technology.
- Metadata exchange with Ascential MetaBroker for DB2 cube views.

SHORT-TERM INTEGRATION PRIORITIES

- Release next-generation Ascential Hawk this year.
- Enhance linkage between Ascential DataStage TX and WBI Message Broker.

LONG-TERM INTEGRATION PLANS

- Converged set of tools based on Eclipse.
- Integrated metadata discovery, exchange and management.
- Connectors that can be used across WebSphere and Ascential technology.

SOURCE: IBM

Apple Looks to Tiger for Increased Server Sales

Some users praise upgrade; others won't consider it

BY CAROL SLIWA

Apple Computer Inc. hopes its new Tiger operating system will help the company crack open the enterprise server market, where its Xserve line lags behind Windows, Linux and other Unix offerings.

But analysts said it's unclear if the 10.4 version of Mac OS X Server, which has built-in support for more than 100 open-source software technologies, will propel Apple beyond its traditional user base. That consists of academic and scientific institutions attracted by the powerful processing capabilities of Apple's systems, as well as publishing companies and others lured by its graphics and multimedia technology.

"They have a challenging environment," said IDC analyst Al Gillen. Apple's technology gives it an advantage in certain markets, Gillen said. But, he added, "overall, the Unix market isn't growing. The only way to grow is to take market share from one of your competitors."

No Plans to Change

Fourteen of 16 IT managers who responded to a random *Computerworld* e-mail poll last week said they have no plans to consider Tiger, either because they aren't familiar with it, they see no need to change their existing technology environments or they're trying to consolidate the various servers they now support.

For example, Stan Johnson, a desktop and LAN services manager for the Multnomah County government in Portland, Ore., said the county's IT department has settled on Windows and Solaris servers and has no plans to evaluate other technologies.

Sales of Apple's Xserve systems are strongest in the $3,000-to-$5,999 price range of the Unix/RISC server market, according to Jean Bozman, another analyst at Framingham, Mass.-based IDC. In that category, Apple servers accounted for 20% of worldwide factory revenue and 21% of unit shipments last year, Bozman said. But looking at Unix/RISC servers priced at $25,000 or below, Apple had less than 5% of revenue and less than 10% of unit shipments, she said.

Florida Community College at Jacksonville uses two dozen Apple servers for video staging, archiving and developing multimedia applications, said CIO Rob Rennie. The servers have been "rock solid" and reliable, and the college will upgrade to Tiger as soon as it can, he said.

Apple servers gain entry to many companies by way of the desktop. For instance, the art department at Weather Central Inc.'s newspaper group uses Macintosh systems, so adding Apple servers was a natural step, said Chuck Sholdt, vice president of weather services at the Madison, Wis.-based weather graphics supplier.

Sholdt said his group installed its first Apple server software about 12 years ago and now uses two Xserve systems. "OS X has matured, and we just keep smiling every time a new upgrade comes out," he said.

But Macintosh usage does not always translate to adoption of Apple servers. About 30% of the end users at JWT, an advertising agency in New York, run Macintosh desktops, said Steve Bumba, JWT's worldwide systems director. But Windows is the official server platform, and Apple servers turn up only in isolated workgroups, he said. 54247

Apple's Tiger Server OS

New features include:

- Support for 64-bit apps
- iChat Server for secure instant messaging
- Weblog Server for publishing online journals
- Software Update Server
- Adaptive junk-mail filtering and virus detection
- Xgrid distributed computing architecture

BRIEFS

EDS Earns Profit on 5% Sales Decline

Electronic Data Systems Corp. reported a first-quarter profit, compared with a year-earlier loss, despite a 5% sales decline. The results included the expensing of stock options, which started on Jan. 1.

EDS BY THE NUMBERS

	REVENUE	PROFIT
Q1 '05	$4.94B	$4M
Q1 '04	$5.2B	($12M)

Cerner Buys French Technology Firm

Cerner Corp. has acquired Axya Systemes, a Paris-based health care IT company that specializes in financial, administrative and clinical solutions for hospitals. Terms of the deal weren't disclosed. The acquired company's new name is Cerner France. Anne-Veronique Dufresnoy and David Kalfon, founders of privately held Axya, will remain with the firm.

Microsoft R&D Aims At Small Vendors

Microsoft Corp. will give small companies access to a library of technologies developed by its research and development teams. Under the new Microsoft IP Ventures program, small firms can license technologies to ease the development of products and services. In return, Microsoft is asking for royalty payments or a stake in the user company.

SANS Lists Top 20 Internet Flaws

The SANS Institute has published its latest list of the top 20 critical Internet security vulnerabilities, which it says companies should patch immediately. The list for the first quarter of 2005 is dominated by Microsoft software but includes problems with products from Oracle Corp., Computer Associates International Inc., Real Networks Inc. and some antivirus vendors.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL

MATTHEW FAULKNER

Intel Updates Moore's Law . . .

. . . by using dual-core CPUs to double the transistors on a chip. Forty years ago last month, Gordon Moore, now Intel Corp.'s chairman emeritus, unveiled his "law" that the number of transistors on silicon chips will double every 18 to 24 months. And so they have. The current version of Intel's Itanium 2 processor houses 410 million transistors, almost double the 220 million in its predecessor. The future holds something slightly different: multicore chips that at least double the transistor count, but in two or more CPUs built as one package. Intel plans to use dual-core technology in all of its product lines. For example, Stephen Smith, vice president and director of desktop platforms at Intel, says the first dual-core Itanium processor, code-named Montecito, is on track to start shipping later this year from the company's fabrication plants and should appear in servers from Dell Inc., Hewlett-Packard Co. and others in early 2006. A dual-core Xeon chip is also due next year. By the end of 2006, 80% of new servers will be dual-core systems, Smith estimates. Applications that have been specifically written for parallel processing systems — or that are "thread-aware," as he puts it — should run dramatically faster on dual-core chips. Smith points to studies showing that the human mind has an attention span of one-half second before wanting to move on to the next stimulus — hence, Intel's constant striving to ensure that our boredom is minimized with ever swifter computers.

1.7B Transistors on Intel's dual-core Montecito processor.

Service providers make mobile . . .

. . . mail a better option. This week, Rogers Wireless Inc., a subsidiary of Toronto-based Rogers Communications Inc., will unveil a mobile e-mail service based on technology from Visto Corp. in Redwood Shores, Calif. According to Suzanne Panopolis, Visto's director of marketing, the company's ConstantSync software lets mobile users synchronize their corporate e-mail systems with the mail sent to their handheld gadgets — and vice versa. Panopolis says Visto's technology is device-agnostic and gives IT managers more flexibility in outfitting mobile workers who need e-mail with less-expensive handhelds that are more appropriate to the task. Panopolis claims that through the Rogers deal and a similar one with London-based Vodafone Group PLC's wireless division, her company will have 500,000 subscribers to the Visto mail-synchronizing service by midyear.

PANOPOLIS: Sync corporate and mobile e-mail.

2008 Year Gartner says all smart devices will have mobile e-mail.

Data, data, data, data and, yes, even . . .

. . . more data. Kerry Gilger, CEO of FYI Corp. in Melbourne, Fla., claims that his company has come up with a way to address the overwhelming deluge of information end users must navigate: KEGS. No, it doesn't involve swilling beer while studying spreadsheets or gazing at PowerPoint presentations. KEGS is FYI's shorthand for "knowledge-enhanced graphical symbol," which it describes as a visual element that can help end users immediately grasp complex, data-drenched conditions — everything from a patient's medical state to the real-time health of a global sales organization. The company's FYI Visual 2.0 software ships with dozens of templates designed for specific business functions, such as help desk and manufacturing operations. A color-coded KEGS indicates whether a given parameter is above, below or within expectations. A quick glance can give an executive a situational view that he can then drill into for more details. FYI Visual also includes adapters that work with most of the major packaged enterprise applications. Version 2.5, which is due later this quarter, adds geographical information system data to the visual displays. Pricing starts at under $100,000.

If it's on your network, do you . . .

. . . know where or what it is? And do you know whether you even need it? Glenn Wienkoop is betting you're probably clueless. He's the president of Mountain View, Calif.-based BDNA Corp., which this month will begin spending $12.5 million of venture capital to convince IT executives that they need even more data about their operations. (If you think you're already deep in information overload, see item above.)

WIENKOOP: Govern your network.

Wienkoop says lots of IT shops have far too many licenses for their software and probably have numerous devices on their networks that they know nothing about. With BDNA's iGovern asset management tools, you get more than 10,000 "fingerprints" of potential hardware and software running on your network, he says. Oh sure, most asset discovery packages can locate an Oracle database on a Sun server. But iGovern can even find Xboxes and CT scanners, Wienkoop says. It lets you know whether you've paid for too many licenses for each application on your network — or maybe for too few. Pricing is based on the number of IT assets that are being tracked. **54206**

Make a name for yourself with Windows Server System. An upgrade to Microsoft® Windows Server System™ made it possible for 50,000 worldwide employees at Nissan Motor Company to have more secure remote access to their e-mail and calendars from any Internet connection, without the hassle and expense of a VPN. Here's how: By deploying Windows Server™ 2003 and Exchange 2003, not only did Nissan IT meet the CEO's demand for better global collaboration, they expect to save at least $135 million by streamlining their messaging infrastructure. To get the full Nissan story or find a Microsoft Certified Partner, go to **microsoft.com/wssystem**

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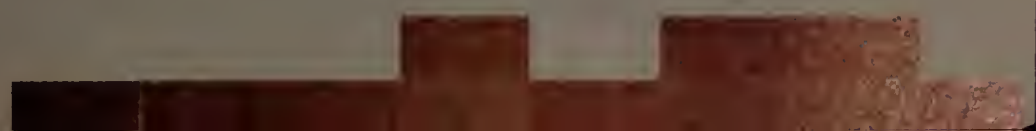

GLOBAL DISPATCHES

An International IT News Digest

Aussie State to Ban E-mail Surveillance

SYDNEY, AUSTRALIA

THE PARLIAMENT of New South Wales, Australia's most populous state, is expected to pass legislation this week that bans employers from secretly monitoring the e-mail of workers unless there is a court order or suspicion of wrongdoing.

Violations of the Workplace Surveillance Bill, which also covers the use of video cameras and tracking devices, would be a criminal offense punishable by a fine of up to 5,500 Australian dollars ($4,278 U.S.) for each person involved in covert surveillance.

The bill was introduced last week by the state government's executive branch. "We don't tolerate employers unlawfully placing cameras in change rooms and toilets," said New South Wales Attorney General Bob Debus. "Likewise, we should not tolerate unscrupulous employers snooping into the private e-mails of workers."

He said the bill strikes a balance between an employee's right to privacy and the legitimate needs of employers to protect their intellectual and commercial property.

"Unless employers have a court order, they would need to give employees notice that surveillance will be conducted," Debus said.

■ SANDRA ROSSI, COMPUTERWORLD TODAY (AUSTRALIA)

GLOBAL FACT

1%

Predicted growth rate for IT spending in Japan this year.

SOURCE: IOC, FRAMINGHAM, MASS.

UBS Completes Big Mainframe Migration

ZURICH-BASED financial services firm UBS AG announced late last month that it has completed the migration of its integrated banking applications from Unisys Corp.'s OS 2200 mainframe technology to IBM's z/OS-based hardware in just 12 months.

The applications, which touch every function critical to the bank's daily operations, had to be moved without causing a hiccup in customer service, UBS said in a statement.

The ambitious undertaking — so important that it was supervised by UBS Managing Director Hansbeat Loacker — involved migrating about 2,000 online programs, 5,000 batch programs, 3,000 database objects, 10,000 data records and over 300,000 program tasks.

Technical assistance was provided by HAL Knowledge Solutions SpA, a developer of application portfolio management tools in Milan, Italy. The vendor's technology made it possible for 98% of the program migration to be done via automated tools, UBS said.

Public Alert System About to Go Global

EQUANT NV, an international network services provider based in Amsterdam, last week said it was selected by Unified Messaging Systems AS (UMS) in Oslo to host and manage a global alert system that lets governments and businesses send a single emergency message to a mass audience.

For example, in a public emergency requiring evacuations, customers such as the Red Cross, utilities, and fire and police departments could send a voice message or short text message to thousands of people in a selected geographic area. Message recipients could then call Equant's international contact center to get more information.

The Equant deal will allow UMS to offer its alert service outside of Scandinavia. **54205**

Compiled by Mitch Betts.

Briefly Noted

Metro AG, a Dusseldorf, Germany-based retailer, and Intermec Technologies Corp. last week announced the first public demonstration of Generation 2 radio frequency identification tags and readers at an RFID conference in Paris. Metro expects more than 100 of its suppliers to migrate to the new, standardized Gen 2 RFID technology for asset tracking and inventory control by the end of this year.

BT Group PLC in London last week announced a multiyear contract to provide global communications services to Jacobs Engineering Group Inc., a $4.6 billion company in Pasadena, Calif. The deal covers LANs, WANs and remote access at Jacobs operations in 30 countries. Financial terms weren't disclosed.

Thrifty Car Rental, a unit of Dollar Thrifty Automotive Group Inc. in Tulsa, Okla., last week said it has finished translating its Thrifty.com Web site into French, German and Spanish using the translation services and global content management system of New York-based Translations.com Inc.

IT's Transformative Era Eludes Most Companies

Mundane issues are still holding back progress

BY THOMAS HOFFMAN
CAMBRIDGE, MASS.

Wrenching changes to the way companies can operate globally, combined with massive investments in fiber optics and other technologies, have paved the way for a truly transformational period in IT, contends F. Warren McFarlan, a professor at Harvard Business School.

But while some leading companies are able to leverage the new business opportunities that are now opening up under a shifting global economy, most IT organizations continue to be hampered by day-to-day system repairs, compliance demands and other mundane requirements, said panelists and attendees at Cutter Consortium's Summit 2005 conference here last week. "Of the nearly 50 years I've been in IT, 2005 is probably the most exciting, transforming time for business applications," said McFarlan.

He noted that the emergence of global business process outsourcing — where companies can transfer entire functions such as accounting and human resources to third-party companies on the other side of the world — has led to "the death of distance."

Such developments, along with the massive changes in IT-enabled business activities that have been made possible by the World Wide Web and other breakthrough technologies, reflect how the industry is moving from the "cow path" created over the first 40 years of IT to a more transformational environment, McFarlan said.

Stupid IT Tricks

However, other speakers who joined McFarlan in a panel discussion at the conference said those opportunities won't come easily for most companies. "As transforming as the technology can be, it's not preventing our clients from doing stupid stuff" with IT, said Tom Bugnitz, a consultant with Arlington, Mass.-based Cutter and president of The Beta Group in St. Louis.

Another problem is that some organizations want to outsource nonstrategic operations that may be in disarray, said Lou Mazzucchelli, a Cutter consultant and a venture partner at Ridgewood Capital Management LLC in Ridgewood, N.J. Badly functioning systems or business processes can't be fixed simply by outsourcing them, he said.

Still, Mazzucchelli agreed with McFarlan that the corporate community may be entering the "mastery phase" of executing on the IT groundwork that has been laid over the past 40 years.

In the health care industry, a majority of IT projects fail because they're poorly aligned with business strategies, said John Halamka, CIO at Harvard Medical School and CareGroup Inc. Halamka advocated "wrapping" legacy applications with middleware to help drive new business functionality and then replacing systems "when you have the luxury of time."

An employee of a telecommunications company who asked not to be identified complained that the need to comply with the Sarbanes-Oxley Act has led to additional checklists and sign-offs that are slowing down IT projects and frustrating business sponsors.

McFarlan acknowledged the challenges to organizational transformation that were cited by the conference attendees. Still, he contended that the "technology friendliness" of a company's CEO "goes a long way toward achieving these types of things." **54201**

IT'S ALL POLITICAL

Political savvy helps IT execs advance their own causes – and those of their companies:

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Continued from page 1

Health Records

up, maintenance and training for the patient-charting and medication-prescribing software for a monthly fee. Morgan Haugh plans to purchase additional software licenses from McKesson as it adds clients, Paul said.

While software and hardware costs for smaller practices could total hundreds of thousands of dollars, Paul's group can offer EMR services for several hundred dollars per month, he said.

The Harbin Clinic LLC, a Rome, Ga.-based practice with about 130 physicians, plans to begin offering hosted access to its EMR system within the next two months, said CIO Thomas Fricks.

The practice uses an EMR system from Chicago-based Allscripts Healthcare Solutions Inc., which will license the software to Harbin at a discount. The clinic will provide frame-relay access to its practice clients, Fricks said.

The State of EMR

The Healthcare Information and Management Systems Society reported the following findings from a recent online survey of health care IT executives:

- **Almost two-thirds** of the respondents said EMRs will be their most important application in the next two years.
- **About 18%** said that their organizations have a fully operational EMR system in place.
- **42%** said their organizations are installing EMR systems, while 22% have developed a plan to deploy EMR.
- **17%** said their organizations don't have plans to deploy EMR technology.

BASE: 253 IT executives at U.S. health care organizations who completed a Web-based questionnaire between Dec. 6, 2004, and Jan. 26, 2005

SOURCE: HIMSS 2005 LEADERSHIP SURVEY

Harbin will provide first- and second-level support for the e-prescribing, electronic tasking and lab results software with its 20-member IT staff and run the software on its servers. The practices buying access would pay for the individual physician licenses they use, communications costs to connect with Harbin, and hardware such as laptops, desktop PCs or tablet PCs, he said.

Fricks wouldn't estimate a cost for the hosted service but said it would be "substantially less" than the price a small practice would pay to move ahead on its own.

"It makes a lot of sense for us to get close to that referral base, from a business point of view and from a patient point of view to share information," he added.

Allscripts has been quietly working to advance the concept of larger practices sharing its software with smaller practices for the past several months, Fricks added.

For several years, William Davis, an independent family practitioner in a four-member practice in Winona, Minn., has been using EMR software from Kansas City, Mo.-based Cerner Corp. that is run by an area hospital. The hospital gives Davis access to the software for the same cost he would pay monthly for an individual license and handles networking and hardware support. Cerner employees at the hospital handle software problems.

"If we have software issues, we can get it resolved often within minutes, [and] we haven't had any significant downtime," Davis said.

Exploring New Territory

While hospitals commonly offer EMR access to physician practices they own, many are now offering fee-based access to independent physicians.

North Memorial Health Care, an independent hospital in Robbinsdale, Minn., is hosting a meeting in two weeks to gauge the interest of about 600 affiliated physicians in accessing the hospital's Epic Systems Corp. EMR system through a hosted model, said Pat Taffe, the hospital's CIO.

"It is definitely new ground that is being plowed right now with affiliates," he said.

The notion of smaller practices outsourcing EMR software from larger practices and hospitals may be one of the few economically feasible options for these users to gain access to full-featured EMR systems, said Mark Leavitt, medical director of the Healthcare Information and Management Systems Society.

Still, he noted that they must walk a fine line to comply with federal legislation that prohibits hospitals from offering doctors incentives — like discounted rates — to refer patients to the hospital. **54233**

Continued from page 1

Missing Tapes

held the 40 data tapes was lost on March 22, Time Warner spokeswoman Kathy McKiernan said. The tapes went missing during a routine shipment to an off-site facility by records management and storage firm Iron Mountain Inc. McKiernan wouldn't provide more details.

However, McKiernan did say Time Warner is trying to convince officials at Boston-based Iron Mountain to change some of their handling procedures. She declined to expand on the status of those discussions.

The $42 billion New York-based media giant also said it has provided the affected employees with resources to monitor their credit reports. The lost tapes didn't include data about Time Warner customers, the company said.

Larry Cockell, Time Warner's chief security officer, added that "we are working closely and aggressively with law enforcement and the outside data-storage firm to get to the bottom of this matter."

Iron Mountain said it has had four incidents of tapes going missing this year. In late April, Ameritrade Holding Corp. in Omaha lost a data tape with the names of 200,000 clients [QuickLink 53906]. At the time, the company wouldn't disclose how the tapes were lost, but in an interview last week, Ameritrade CIO Asiff Hirji said that the tape fell off a conveyer belt in a shipping facility.

Assuming the Worst

Hirji, who wouldn't identify the carrier, said that for "whatever reason," the shipper took "a bunch" of tapes out of its original secure box and placed them into another box. Sometime after that, the second box was damaged on the conveyer belt, and four tapes fell out.

"We found three," he said. "That other tape, I'm almost 100% sure, is somewhere in that facility — probably in the rubbish bin. Or it has been destroyed in their lost and found. However, we can't take that chance. We have to assume it's lost and has gotten into nefarious hands. I'm not pointing fingers. I'm not deflecting blame. It's our responsibility."

Like Time Warner, Ameritrade is taking steps to protect the confidentiality of clients whose names and/or Social Security numbers were on the lost tape. For example, the company has stepped up monitoring to detect whether any identities have been compromised. So far, Hirji said, there has been no evidence of compromised data.

Hirji said Ameritrade is also looking at encrypting data on archive tapes and using shipping boxes that can't be opened so easily.

Melissa Burman, director of corporate communications at Iron Mountain, said her company has stepped up training of employees in the handling of sensitive data on tapes.

"We're doing 5 million pickups and deliveries a year; that's a huge volume. We do have incidents from time to time," she said. "We will look at every opportunity we can to make incremental improvements in our process."

Moreover, Burman said, customers need to encrypt private information on their backup tapes.

Bart Lazar, a privacy and intellectual property lawyer and partner at the law firm Seyfarth Shaw LLP, in Chicago, said that as data-loss incidents pile up, the companies found responsible will likely face pressure to change their data-security standards. Most of the pressure, he noted, won't come from Congress but from insurance companies requiring more stringent safeguards.

Part of the current problem, Lazar said, is that companies don't have proper chain-of-custody requirements or encryption technology in place.

"I've dealt with many of these companies, and if you ask them what happens with their data . . . they can't chart it," he said. "Or the companies know what to do, and they just haven't committed the resources to do it."

Lazar said data-loss incidents will also likely spur companies to turn to internal data-protection schemes instead of using third-party service providers or external data processors. **54195**

Lost Data

Some of the major data thefts or losses this year:

- **FEBRUARY: ChoicePoint** discloses that hackers accessed data on 145,000 people.
- **MARCH: Retail Ventures Inc.** reports theft of credit card information from 103 of its 175 DSW Shoe Warehouse stores.
- **MARCH: Bank of America** admits losing backup tapes with credit card data on 1.2 million customers, including 60 U.S. senators.
- **MARCH: Reed Elsevier** reveals hackers stole information on at least 32,000 people from Lexis-Nexis databases .
- **APRIL: Ameritrade Holding** admits losing a backup tape containing personal information on 200,000 clients.
- **MAY: Time Warner** says it lost 40 backup tapes with information on about 600,000 workers.

MORE ON AMERITRADE

Q&A: Ameritrade CIO Asiff Hirji discusses the Datek merger and Ameritrade's use of midrange storage equipment and open-source technologies. **Page 41**

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LAWSON

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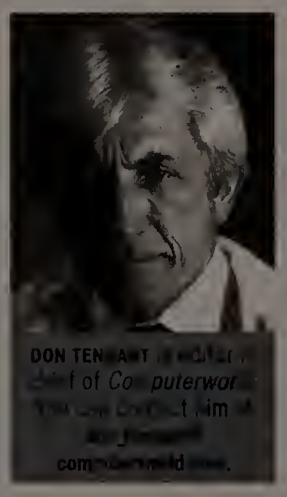
DON TENNANT

Courting Controversy

WITHIN MINUTES after my Q&A with Gerald Cohen was posted on our Web site last week [QuickLink 54143], the e-mails started pouring in. The founder and CEO of business intelligence software vendor Information Builders had certainly stirred some emotions with his comments against offshore outsourcing and lifting the H-1B visa cap.

"Congratulations for letting someone tell it like it is! Gerald Cohen deserves a medal," cheered one reader. "This guy is an American hero for sticking to his guns and bucking the popular trends," gushed another. A third had quite a different view: "Mr. Cohen is not only wrong, but also foolish," he grumbled.



When you get polar opposite reactions to what you've said, you know you've said something worthwhile. That Cohen is worth listening to stems from the simple fact that he doesn't avoid controversy. In fact, he appears to relish it.

He didn't seem particularly thrilled to discuss the delay of his flagship WebFocus 7 product (it's now expected to ship "a month or two" late, sometime this summer), but other than that, he was as candid as they come. Cohen was perfectly willing to chime in, for example, on the recent troubles at Siebel Systems. ("It's an unpleasant company to work for. . . . The remarkable thing about Siebel is they survived.")

Cohen's most colorful comments, by far, came during our discussion of the offshore outsourcing and H-1B issues. He said he doesn't buy the argument about outsourcing to India as a means of getting a foothold in that market. ("What are you selling in India? Zilch.") And he scoffed at Bill Gates' recent statements about there being a need to get rid of the H-1B visa cap. ("He's full of it.")

I love a good sound bite as much as the next interviewer, but what I appreciated even more was Cohen's candor with respect to the dilemma he faces over what he has to do to keep his own company profitable. As chairman of the New York Software Industry Association, Cohen is obliged to champion the cause of keeping IT jobs in the U.S. — he's clearly an advocate for restricting H-1B visas and for avoiding offshore outsourcing. But he acknowledged that Information Builders sends "the routine kind of quality assurance work" offshore. "I can get things done cheaper in Moscow than I can in New York City," Cohen said.

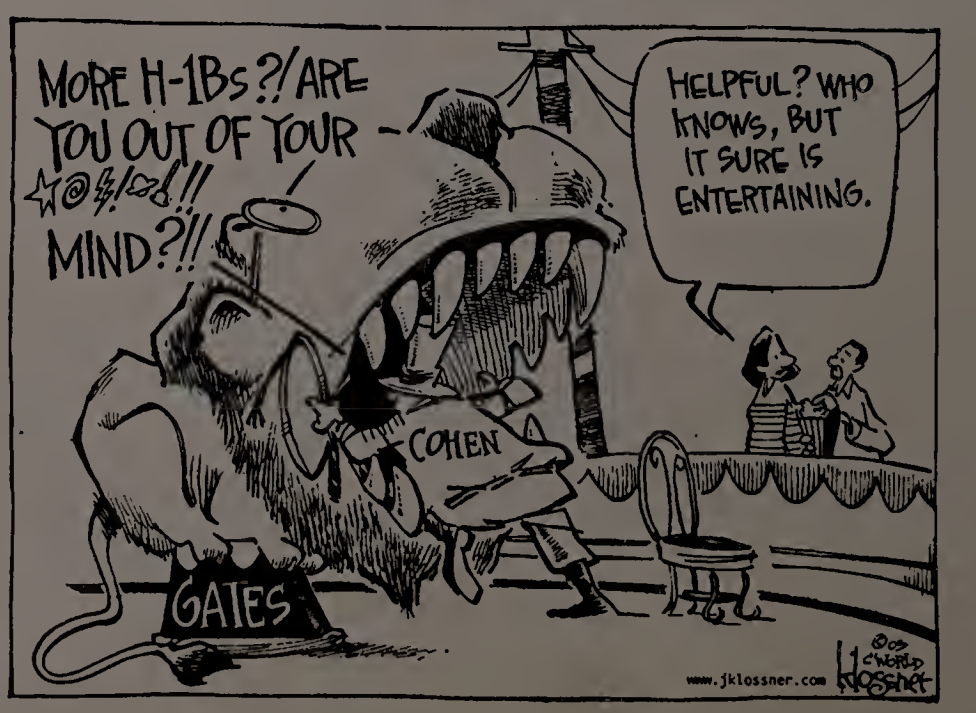
Still, he didn't shy away from the fact that "a lot of these jobs that go overseas are the spawning grounds for future jobs." QA work has traditionally blazed a career path to programming and ultimately to more advanced software design, so sending it offshore damages the employment ecosystem. "The whole industry's going to move offshore," Cohen lamented.

So, what's the answer? Cohen doesn't pretend to have it. "I have no solution for how we're going to throttle this in some way," he said,

But you know what? At least he's willing to talk about it, and to do so with candor and humility. I don't know that there's much more we can ask for. What's unfortunate is that so few people are willing to even discuss the topic on the record because they're afraid of being judged in the court of public opinion.

I don't know whether Cohen is an American hero who deserves a medal, but I do know he's not foolish. What's foolish is thinking you can be a respected leader without being willing to speak your mind. **54202**

Don Tennant



BRUCE A. STEWART

All Packaged Up, Nowhere To Go

DURING THE PAST 10 years, we in IT have done a solid job of weaning ourselves from the notion that custom applications are a good idea.

Packages have replaced our applications of old. When we want something new, our first thought is to look for a product we can buy.

If the goal is simply to provide technology to support the enterprise, that's the right way to go about it. But the game is changing again, and custom applications are returning to the fore.

IT is now woven throughout the enterprise, and there are few job functions nowadays that don't depend on the continuing operation of some IT system. With plant floors receiving materials through the workings of IT systems, even workers on the line depend on IT (even if they don't experience it directly). But the challenge is this: If everyone has the same stuff, how do we differentiate ourselves from our competitors?

In his book *Does IT Matter?*, Nicholas G. Carr argues that we don't — and shouldn't. But CEOs disagree.

Bruce Rogow's firm, Vivaldi Odyssey and Advisory, reports that CEOs consider as much as 30% of their businesses to be "dead" — they're producing products and taking in money, but they have no growth potential and must compete solely on price. CEOs are calling for innovation to produce growth.

But innovation can't be found in the packaged application market. Business processes, problems and methods must become common before a package can find the repeat business needed to make it a successful product (and justify its development costs). Potential clients must be (or be willing to

become) similar enough to implement the package and have it fit their needs. What this says is that companies will share a base of common enterprise systems but season those with applications that are unique.

Before jumping up and down with joy ("The fun is back in IT!") or hanging your head in despair ("That's how we blew our budget and credibility before!"), stop and recognize that something else has changed. Service-oriented architectures and the creation of Web services have made creating custom extensions — even whole new capabilities — less risky than in the past.

This brings us to the real point of custom code. It should be focused and light, just enough to get the job done.

To get there, we also have to adopt new practices. Start by rigorously separating your requirements from your specifications. Requirements are about the problem you are solving and the work the custom code will do (or the product it will be). Good requirements talk about how each item in the functions being designed can directly lead to measurement of a business result. (Business cases are developed from these; the proof that value was delivered comes from measuring the results later.) Specifications, on the other hand, are about how the solution is delivered.

Getting the requirements done allows you to know precisely what you are implementing — and then to do no more than that. (Do you use, or even know the function of, all the buttons on the tool bar in any application? It's wasteful to overbuild.) Freeze these (you're delivering a product, and time to market matters) and get it built. There's always Release 2 for new requirements that emerge later.

Deliver innovative solutions that do "just enough," and become victorious in your CEO's eyes. **54038**

THORNTON A. MAY

IT May Have Become Too Invisible

THERE'S no such thing as bad publicity, they used to say in Hollywood. Far better to be talked about negatively than not to be thought about at all.

The IT profession may be in need of some publicity. The results of a recent survey of 55 of the top executive MBA candidates — degree-seeking students who have full-time jobs — at the Fisher College of Business at Ohio State University indicate that IT — what it is, what it does and what it can do — isn't on the minds of next-generation business leaders.

- **75%** said they didn't think much about IT.
- **66%** didn't know who the CIO was at their company.
- **48%** had "never actually met an IT person."
- **63%** were hard-pressed to articulate the IT strategy of the company they worked for.
- **84%**, when asked to recall personal experiences related to IT, cited very negative situations, such as IT failing to deliver on something.

This data correlates with research conducted at the IT Leadership Academy that documented that IT has an image problem. In addition, large subsets of the IT tribe are experiencing an identity crisis, exhibiting pronounced uncertainty about the roles they play today and will play in the future.

THORNTON A. MAY is a longtime industry observer, management consultant and commentator. Contact him at thorntonamay@aol.com.

The image problem involves the *external* awareness or perception of who IT is and what it does. The identity problem concerns an *internal* awareness of who IT is and what it does. Image is linked tightly to reputation, which is defined as the collective judgment by outsiders of an organization's actions and achievements. It's one thing to be judged harshly. It's quite another not to be judged at all.

Most IT leaders are probably familiar with emerging research that characterizes the contemporary enterprise as an assembly of skills tribes — marketing, finance, operations and IT. These tribes should be — but in most cases aren't yet — integrated. Each tribe has its own language, belief system and set of rituals.

Success for the enterprise is seen as a function of whether leadership can get the tribes to play well together. Until recently, many in IT, myself included, labored under the impression that the first step on the path to success is to understand how each discipline thinks. We were wrong. The real first step is to make sure the other tribes know you exist.

The mission for many IT shops is to go unnoticed in the way that an elevator goes unnoticed when it's functioning properly. But have we become too invisible? Has IT fallen off the radar screen of the next generation of business leaders? If so, how do we build credibility with those leaders?

Conventional wisdom tells us that any enterprise has three primary agendas: the build agenda, the run agenda and the change agenda. Having taken part in those first two agendas by building (or at least providing) the company's IT infrastructure and then migrating it to a lights-out mode of operation, IT has one obvious role remaining: to participate actively and contribute substantively to enterprise transformation and innovation.

The challenge for the discipline is that most of the executives currently involved in such activities don't think of IT as being able to contribute much in the transformation and innovation arena. What's worse, the people who will take those executives' places don't really think about IT people at all. We have to change this. **54098**

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READERS' LETTERS

Vendors Can Be True Partners

IN THE INTERVIEW on vendor negotiations ["Tough Tactics," QuickLink 51968], Joe Auer says, "First, it's a fantasy that it's a partnership." That is incorrect. A good partnership depends on trust and room for value-add. In my industry (construction), contracts come with many pages of legal discussions of what happens when things go bad, and everybody knows that the best resolutions occur when nobody ever has to refer to those pages. And the worst resolutions occur when they do refer to those pages and the lawyers parse them. A partnership can be real as well as extremely rewarding when it is based on differing expertise and an expectation that both parties will benefit from the transaction. In business, as in life, you cannot have your friends and eat them too. Your suppliers won't be there for you if you drive them out of business.

Auer's viewpoint is corrosive to the vendor/customer relationship. Such thinking has led to reverse auctions and the damaged relationships that have followed. While there are commodity-based and price-based transactions, there are also knowledge-based and trust-based ones.

Stephen Herdina
Cincinnati

Punish the Guilty

THE ARTICLE "Microsoft Gives Blaster Author a Break on Damages" [QuickLink 53500] stated that in lieu of paying $497,546 in restitution, Jeffrey Lee Parson will have to do 225 hours of community service over a three-year period. What crap. The guy causes all that damage and gets to work off the fine at $2,211 an hour, for less than an hour and a half a week. Do you think for a second that this type of treatment is a deterrent?

Larry M. Litwin
Programmer/analyst, Albany, N.Y.

The Key Is Strong Authentication

RECENT NEWS about hackers stealing information shows that we have arrived at a crisis point. The information can be rendered unusable, however. The trick is to implement strong authentication, using PKI certificates. The current one-way SSL approach is inadequate, because user authentication using a username and PIN is rather weak.

Donald Chi
Program manager, Gaithersburg, Md., donchi@ieee.org

Apple's RAID Entry

THE ARTICLE "Invasion of the iSCSI Arrays" [QuickLink 53298] seems incomplete in regard to pricing options. What responsible IT manager wouldn't look at Apple's Xserve RAID technology? For the $47,000 that Jim Tarala spent, he could have purchased about 20TB of storage from Apple. It connects over Fibre Channel and doesn't need Apple's operating system to access it. It has a Java-based configuration client that will run on Windows. For half of what he spent, Tarala could have purchased twice as much capacity. Just because the "standard" vendors are expensive doesn't mean there aren't cheap yet reliable options. And who would have thought that option would be Apple?

Stu Duncan
IS manager, Greenville, N.C.

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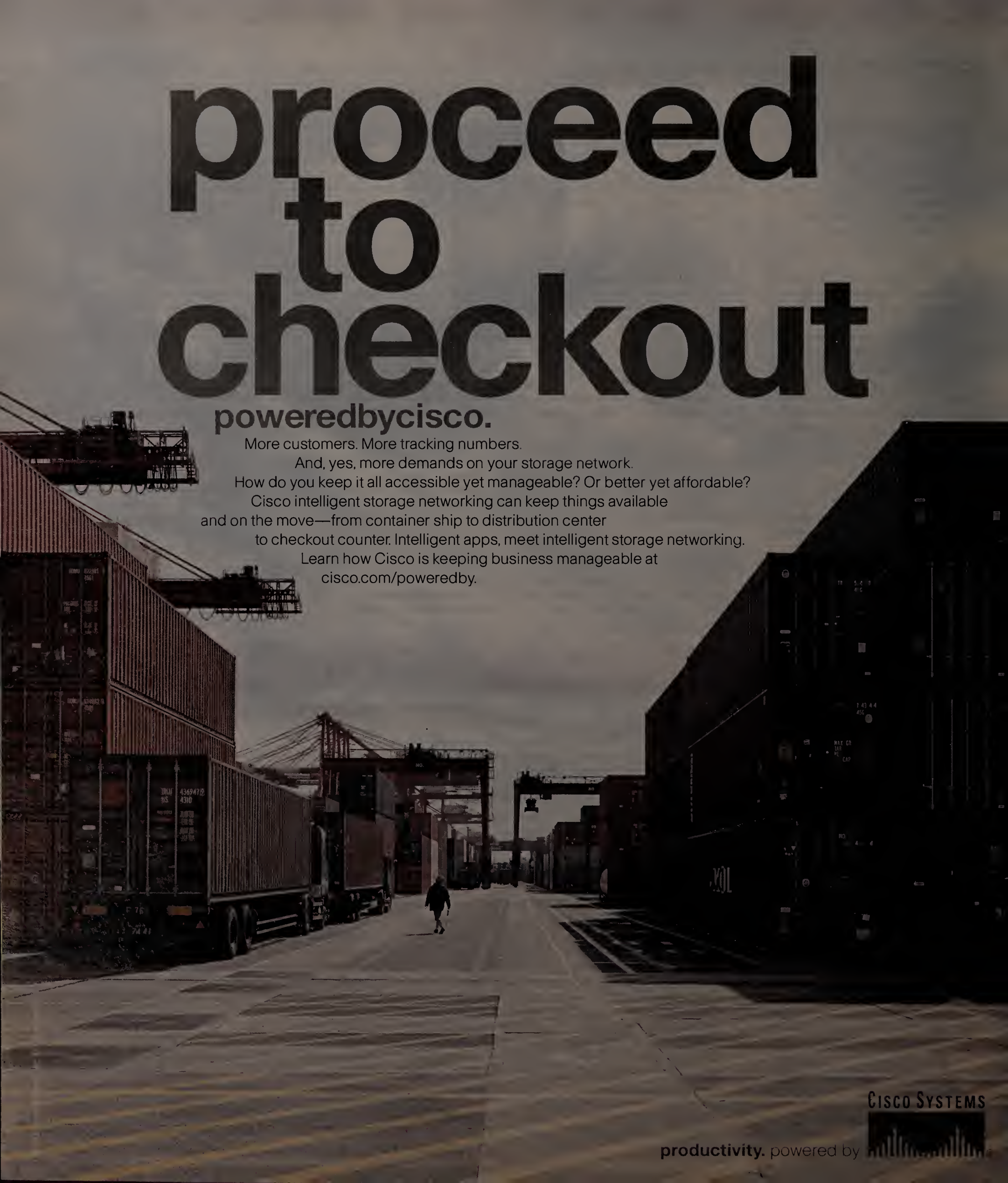

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SECURITY MANAGER'S JOURNAL

Protecting the Crown Jewels

Mathias Thurman looks at various options for protecting one of his company's most valuable assets — its source code. **Page 24**

Q&A

Unconventional Innovation

Dell CTO Kevin Kettler says the computer maker's involvement in efforts to define emerging technologies such as PCI Express has helped better focus technology on customer needs. **Page 22**

MANUELLO PAGANELLI

Telesis' Phil Fowler chose a biometric system that eliminated the need for user IDs and passwords.

BIOMETRICS: BACK To Business

After 9/11, public-sector interest in biometrics spiked, but standards and stringent scalability testing are still needed to trigger widespread corporate adoption. BY KYM GILHOOLY

People and passwords — in the long run, they just don't work very effectively together. At least that's what Phil Fowler, vice president of IT at Telesis Community Credit Union, a Chatsworth, Calif.-based financial services provider that manages $1.2 billion in assets, found out. His team ran a network password cracker as part of an enterprise security audit last year to see if employees were adhering to Telesis' password policies. They weren't.

"Within 30 seconds, we had identified probably 80% of people's passwords," says Fowler, whose group immediately asked employees to create strong passwords that adhered to the security requirements. A few days later, the team ran the password cracker again: This time, they cracked 70%.

"We couldn't get [employees] to maintain strong passwords, and those that did forgot them, so the help desk would have to reset them," says Fowler. Telesis decided to secure network and application access with a biometric system that eliminated the need for user IDs and passwords, opting for the DigitalPersona fingerprint system from DigitalPersona Inc. in Redwood City, Calif.

The use of biometrics — the mathematical analysis of characteristics such as fingerprints, veins in irises and retinas, and voice patterns — as a way to authenticate users' identities has been a topic of discussion for years. Early commercial success stories have largely come from applying biometrics to projects with provable returns on investment: time and attendance, password reduction and reset, and physical access control. Though biometric work remains primarily in the pilot stages, the events of 9/11 pushed emerging commercial products to center stage — a spot some say they weren't ready to claim. Vendor focus shifted from the private sector toward the huge contracts many expected would be awarded in the public sector, say observers.

The attacks on 9/11 "brought focus to what was going on in biometrics, and [vendors] switched gears. Where previously they were thinking about [biometrics] for enterprise access, they decided government contracts were the next gold mine and jumped on that," says C. Maxine Most, president of Acuity Market Intelligence in Boulder, Colo.

The problem with this strategy, she says, is that commercial biometric systems aren't standardized and haven't been tested in large-scale implementations of the type federal agencies are undertaking, such as the US-VISIT and Transportation Worker Identification Credential projects.

Samir Nanavati, a partner at International Biometric Group LLC, a consultancy in New York, says the problem was more a lack of public-sector readiness than technology shortfalls.

"In 2001, the private sector was aggressively researching and testing biometrics, and the public sector had a couple of projects," Nanavati says. "After September, the biometrics industry reread the whole landscape and decided to gravitate toward the public sector, going after a market that wasn't ready for them." But, he adds, there are plenty of smaller stories of "biometrics hitting the bottom line" in the private sector.

Finger on Access

That has been the case for Telesis, which has rolled out fingerprint-based network and systems access technology in its headquarters and credit-union branches. Once Telesis has thoroughly tested the system, the company will deploy it in the offices of Business Partners LLC, its business loan services partner. Users no longer need to remember IDs and passwords because DigitalPersona

authenticates enrolled personnel via fingerprint scanners, tying the fingerprints to 256-character passwords that it randomly generates every 45 days.

Fowler says Telesis looked at a single sign-on application but was uncomfortable with the idea that one authentication would provide access to the network and all connected applications. With the current deployment, employees touch their scanners to gain access to each application they use, including homegrown and third-party Web-based applications.

The system is already integrated with Microsoft Corp.'s Active Directory for network access, and fingerprint profiles are encrypted and stored directly in Active Directory, relieving worries Telesis had that they might be stored as images that could be compromised. Telesis' IT department is reviewing applications that require ID and password sign-ons and creating profiles for them in the DigitalPersona server.

During the deployment's testing phase, Fowler's team encountered a few issues related to mobile workers. For corporate travelers, the company considered equipping laptops with scanners, but most Telesis executives don't carry their laptops unless giving presentations; they prefer to use hotel business centers or Internet cafes to access the corporate intranet. When they do that, they use static but difficult-to-crack passwords.

Another segment of Telesis' mobile population — "roaming" tellers — are another concern, says Fowler. He wants to be able to lock down all workstations so that the Ctrl-Alt-Delete function won't bring up the user ID and password log-in option, but then roamers wouldn't be able to use the teller workstations they need.

Although Fowler says it's difficult to quantify ROI, Telesis is pleased with the streamlined network access, reduced password-reset requests and the improved security ratings audits have found since it adopted DigitalPersona.

Security or Convenience?

The kind of biometric application Telesis is piloting — user authentication for access to computer systems — hasn't thus far seen the adoption rates that many had expected, according to Gartner Inc. analyst Clare Hirst. She adds that she doesn't expect to see many more such deployments before 2010.

"We hear a lot about biometrics, but the reality is that most of the projects are still in pilot stages," Hirst says. The most mature applications of biometric technology are in systems that control physical access to facilities and keep records of time and attendance, she says. "With time and attendance, companies can use finger-, hand- or facial-recognition technology; get rid of access cards and mechanical punch-in [devices]; and it's not a security issue — it's to save money," Hirst says.

Though it's not using biometrics for actual system access, Washington-based Marriott International Inc. is using voice authentication technology to reset the passwords that enable access to its intranet, Active Directory service and several nonproprietary applications, according to Al Sample, senior vice president of client services.

The system, Vocent Password Reset from Vocent Solutions Inc. in Mountain View, Calif., complements existing reset options. Users can also change passwords using PC or Web-based tools, or they can call the help desk. Around a third of the 40,000 Marriott employees who are assigned passwords take advantage of the Vocent option.

The system made sense, says Sample, because it utilizes Marriott's phone system and requires no special hardware. The Vocent application provides two-factor authentication, checking a user's voice patterns against a stored voiceprint while simultaneously verifying user information through voice recognition.

"We capture a voiceprint through a one-time registration, and at the same time, we gather some key information that we use during the password-reset process," says Sample.

Given the costs of manual password resets — Gartner estimates that they cost $10 to $31 per incident — Marriott's self-service deployment has translated into strong savings, says Sample, particularly since IT requires that passwords be changed every 90 days.

"We have a very large [user] base, with more than 30,000 associates, so you can imagine the amount of human intervention required for manual password resets," he says.

I WANT TO READ YOUR HAND

[illegible] over which biometric system provides the most accurate identification, but accuracy is only one of the factors driving technology decisions. The ways and the places in which people do business affect the biometrics that businesses deploy.

First, there's the little matter of concerns over privacy that [illegible] have exacerbated. Then there's the perceived or real intrusiveness of the type of technology deployed, [illegible] and who's deploying it. A p[illegible] not mind putting his hand [illegible] he might object to having his [illegible] scanned.

Then there are [illegible] technological issues. For ex[illegible] tication systems ca[illegible] background noise, [illegible] can be c[illegible] ing co[illegible]ons.

At O[illegible] for [illegible] tal school [illegible] that [illegible] probably wouldn't be [illegible]

"Dental students get po[illegible] their hands from their gloves, [illegible] wash their hands a[illegible], so [illegible] didn't work well," says [illegible] president of IT. "We [illegible] thresholds so low as to [illegible] systems] not feasible."

At Children's [illegible] Sc[illegible]eb, [illegible] to [illegible] informat[illegible] s'm[illegible] visi[illegible] to 600 [illegible] 4,000 c[illegible] ployed [illegible] fingerpr[illegible] boards [illegible] that [illegible] [illegible]

Waiting for Standards

The technology behind biometrics represents an emerging commercial market, but adoption of such systems won't really take off until vendors and users agree on standards in areas such as application programming interfaces, common file formats and data interchange.

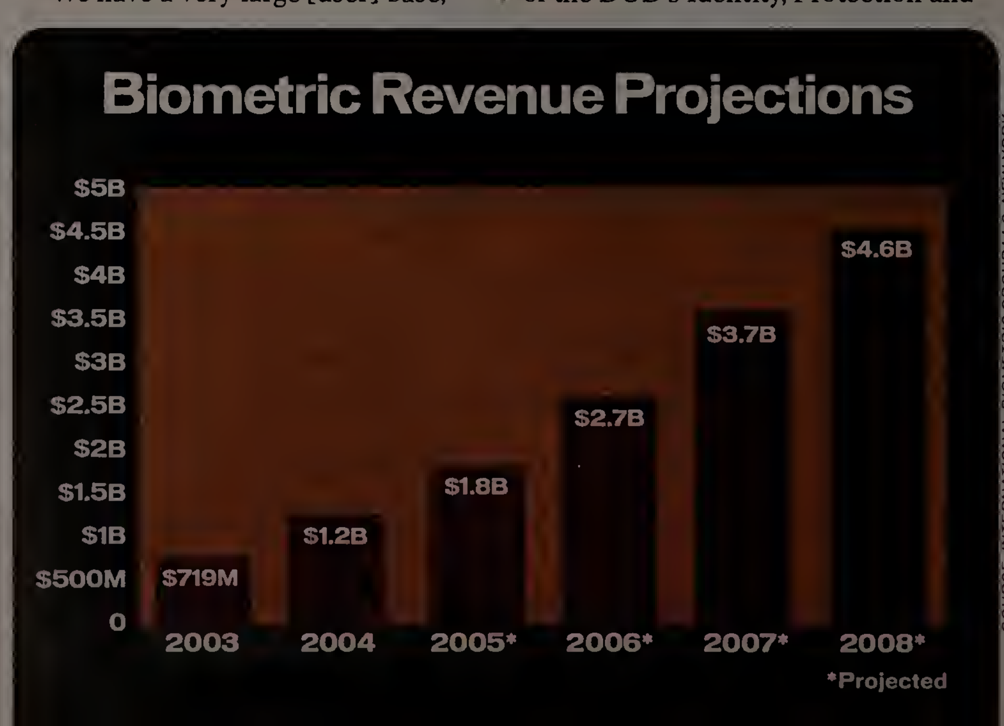
The scope of massive federal initiatives such as the U.S. Department of Defense's Defense Biometric Identification System demands standardized, interoperable technologies, says David Wennergren, the U.S. Department of the Navy's CIO. He is also chairman of the DOD's Identity, Protection and Management Senior Coordinating Group, which oversees agency groups working with smart cards, public-key infrastructure and biometrics.

The DOD is using fingerprint biometrics as part of an authentication process for providing personnel and associates — 4 million people to date — with smart cards for physical and network access. It's also piloting iris- and facial-recognition technologies.

"It's key that we have interoperable systems because everybody's mobile; we can't buy a proprietary biometrics [system] that ultimately only works at one base," says Wennergren, who's based in Crystal City, Va. He cites a recent memo issued by the DOD CIO that mandates that the agency's biometric collection practices align with FBI standards so the agencies can share data.

"When [the DOD] first became big consumers of smart cards, we knew there weren't perfect standards in place, but we were able to leverage our size and work with other agencies and technology providers to help create standards," says Wennergren. He says he hopes that federal agencies will have the same impact in driving biometrics standards. 54024

Gilhooly is a freelance writer in Falmouth, Maine. You can reach her at kymg@maine.rr.com.



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UNCONVENTIONAL Innovation

Dell CTO Kevin Kettler says his company is more than a marketing marvel – it shapes emerging technologies to meet customer needs.

DELL INC.'s success is usually chalked up to its marketing savvy rather than innovative technology. Chief Technology Officer **Kevin Kettler** says, however, that the company has played a pivotal role behind the scenes, helping to shape emerging technologies to meet customer needs. Kettler discussed Dell's impact on technology in a recent interview with *Computerworld*'s Robert L. Mitchell.

What role does R&D play at Dell? The model we've chosen to pursue is to focus on customer-driven innovation. We have well over 4,000 engineers worldwide who are working on product development and research leading into product development. We think there's a pretty strong investment there.

To what extent does Dell influence the development of the core technologies that go into its products? One of the best-kept secrets around is what exactly our influence is in this area, and I consider it very extensive. Dell has core teams that are working [with silicon designers] on where we think customer requirements are and where we think innovation needs to occur in basic silicon design.

We are down at very low levels with chip set architectures, chip set partitioning, processor interfaces, processor architectures. Right now, we have discussions going on on products we won't see produced until the 2009-2010 time frame. We have a very regimented process and approach. We will typically drive the requirements based on what we are generating from our direct customer touch.

Can you give an example of how Dell has influenced the development of a technology? The most recent example would be PCI Express. Dell was a very early adopter of the concept of needing to move to a new, higher-speed bus interface for a lot of different reasons. We brought our expertise on how do you put that into a system, how do you do board layout, how do you ensure that EMI capabilities are not being exceeded, how do you ensure that cross talk is handled. That's one that we've participated in from its earliest infancy the whole way through to delivery of PCI Express capabilities literally through all of our product lines.

What emerging technologies are you most excited about that are likely to appear in Dell products for enterprise users over the next 12 to 24 months? One of those is the work we're doing around Blu-ray disk, [an] emerging standard for next-generation optical disk drives. We've been working with a number of partners in defining the fundamental technology, what it is, how it's going to operate.

We're also excited about the delivery of technologies in the multicore area around processors. Not just multicore processors but multicore coupled with some of the virtualization technologies and techniques.

Why did you back Blu-ray and not the competing HD-DVD standard? When you look at the capacity of the drives, Blu-ray provides significantly more headroom than what HD-DVD does. We consider Blu-ray a pretty major change, and we wanted to make sure we had a technology that was going to have some longevity around it, especially given the investment in transitioning customers to a new format for all of their content.

What synergies do you see between multicore processors and virtualization? Multicore is putting multiple processors on a single die to create a single footprint. Today, we think of virtualization as a single box with virtualization software that gives the impression of that box serving multiple operating environments. With multicores, if I partition up my system using virtualization software, I can start to dedicate cores to different environments. So it expands the scope of traditional virtualization technologies.

Where has Dell led the market in adopting new technologies? We have historically been the absolute leader in delivering new memory technology to the marketplace. Other technologies have been more unique. If you look at our notebook products, for example, we've put together some pretty novel approaches for handling hard-drive protection that we call StrikeZone. It's a mechanism that protects [the disk drive] when you drop a notebook. Other things, like our battery technologies, and particularly our charging techniques, are things we created, developed, designed and delivered to the marketplace.

To what extent does Dell help design the specifications surrounding the emerging standards it supports? There's an amount of the architecture definition around PCI Express that was created by Dell engineers. Another example is a specification called Disk Data Format [DDF]. One of the people on my team wrote that specification and brought it forward to the Storage Networking Industry Association.

DDF is in response to customer feedback. A customer would build out a Dell server or external storage array and might have a set of disk drives with their company's data on those drives. [Then] they might migrate to a different machine. What was at issue was that each of the five controller manufacturers was using proprietary formats to lay out the data and tables associated with the formatting on the drive. So [Dell technology strategist] Bill Dawkins heard this and went off and wrote a specification on how that architecture should fit together and has driven it through a standards body. It's been accepted, and we're starting to see silicon from some companies.

At the end of the day, when customers plug and play drives, they won't run into the potential for that data to be unrecognized and misinterpreted as a blank drive and formatted over. So it's a huge win. It's direct, customer-driven innovation.

Where do you see technology moving in the next three years? One of the key shifts that is occurring is that with the addition of blades and the need to manage blades, it's produced a razor focus at Dell around the systems management infrastructure and how do we move from a systems management infrastructure that has traditionally been very proprietary, very monolithic in nature to something that is going to provide greater flexibility to manage . . . across this mass of distributed resources that exist out there. We have a vision and approach that we think will move the ease at which the enterprise can be managed, deployed and serviced going forward.

What I've described has been a desire for customers, but the industry hasn't been rallied around it. That's the key thing that's happening right now. We're doing a lot of work getting people excited about plugging into an open infrastructure like that, and that's going to lead to a ton of innovation. Ultimately, if we do our job well, customers will benefit. **54006**

CHILLING OUT WITH DC POWER

Rising temperatures could push more data centers to make the switch to direct current power-delivery systems.

By Robert L. Mitchell

AS VENDORS CONTINUE to pack more servers into a smaller footprint, keeping a lid on power requirements — and keeping server racks cool — has become a huge challenge. And the lowly AC power supply remains the toughest part of the problem to solve.

A typical power supply, which converts AC power into the various DC voltages required by individual server components, has an efficiency range of just 65% to 85%, vendors say. Just one 1-kilowatt power supply may generate 300 watts of waste heat, and today's blade servers can consume more than 14 kilowatts per rack.

"That's bad," says Scott Tease, product marketing manager for eServer BladeCenter at IBM. "One, I paid for that electricity, and two, I've released the heat into the environment and I have to pay to air-condition it."

To make matters worse, AC power-supply efficiency drops with the utilization level. In servers with redundant power supplies, where the load is shared, best-case utilization levels are below 50%. As a result, power supplies in most servers tend to operate at the low end of the efficiency range, says Ken Baker, data center infrastructure technologist at Hewlett-Packard Co.

Some data center managers have responded by using DC-based power distribution systems, eliminating the need for AC power supplies for server racks. IBM and HP both offer servers that can accept bulk DC power from a centralized, telecommunications-grade -48-volt DC power distribution unit (PDU) and then step it down to the voltages required at the server level.

Rackable Systems Inc.'s products support both bulk power and an option that moves the AC/DC converter away from individual servers to the top of each rack, where heat can be vented into the air-handling system.

Milpitas, Calif.-based Rackable claims that its DC-powered servers reduce heat by up to 30%. HP makes more modest claims of 15% reduction, which can add up across many racks of servers, Baker says.

Data393 Holdings LLC has made the leap to DC-powered servers. The company, which operates a collocation center in Englewood, Colo., uses a DC power distribution system inherited from a previous tenant to power 140 servers from Rackable. Data393's DC power plant includes rectifiers that convert incoming AC power to DC and charge a bank of uninterruptible power supply batteries as well as its servers and network equipment.

Chris Leebelt, senior vice president at Data393, says the IT services provider chose DC-powered equipment because it needed to make the most of its available square footage and its ability to cool that space. While the power distribution system must still convert incoming power to DC, that conversion occurs outside the data center.

DC-powered systems from Rackable cost about the same as traditional AC-powered servers while allowing more servers in each rack, according to Leebelt.

DC rectifiers also have a mean time between failures of 7 million hours — 70 times longer than AC power supplies, says Geoffrey Noer, senior director of product marketing at Rackable.

"Some of our largest customers host almost exclusively in DC-related environments," says Baker. But he also points out that most are telecommunications companies and hosted service providers. "The number is very small in corporate data centers," he says.

So why don't more enterprise data centers use DC PDUs?

Tease claims that the relationship between utilization and efficiency issues is overstated, and IBM's BladeCenter power supply designs are 90% efficient. In contrast, the converters required to step down DC power are 93% efficient. "Unless the infrastructure is already in place, it just doesn't make sense," he says.

Baker says inertia and familiarity keep data centers on AC power, and the standards for AC are well established and understood. "It takes specialized talent to manage [DC] correctly," he says.

And because DC power has more resistance, the distribution system requires larger conductors. Neil Rasmussen, chief technical officer at American Power Conversion Corp., an UPS and data center rack system manufacturer in West Kingston, R.I., says that adds to infrastructure costs. "DC wiring at these power levels is too expensive and complex, requiring specialized contractors and design," he says.

But Baker and Rackable's Noer say the costs overall are about the same.

Baker says the adoption of DC as an alternative power source could become a trend, particularly in new data centers where such infrastructure choices are being made. "We have customers that have chosen native DC from the ground up," he says. But Baker adds that the lion's share of enterprise data centers will continue to center around AC power.

Meanwhile, IBM is focusing its power-saving efforts on areas such as the CPU, which accounts for 25% of the power budget in a BladeCenter, Tease says. IBM offers a 2.8-GHz Xeon DP processor that adds $200 to the cost of a dual-processor blade but cuts power from 103 watts to 55 watts.

Noer claims that ultimately, the combination of low-voltage parts and DC power will have the biggest payoff: It can cut power requirements by half.

Rasmussen isn't convinced. "If you need to cut the load 15%, just pull out 15% of the servers and put them somewhere else," he says.

But for Data393, floor space is limited. DC power has enabled Leebelt to fill server racks that would otherwise run too hot for his air-handling systems. "[Vendors] don't tell you that you can't load a full rack of blades because the heat coming off the racks can be very significant," he says.

DC power by itself can't solve the problem of increasing power density in server racks. But the option has provided enough relief to convince Leebelt to migrate Data393's remaining 600 servers. "We're doing consolidation work to get out of AC hardware," he says. **53969**

To DC or Not to DC?

PROS:

- **A DC power distribution system moves the inefficient and heat-generating AC/DC conversion process out of server racks. Cooler racks support higher server densities, saving floor space.**
- **DC systems are more reliable than AC power supplies.**
- **Batteries used in DC designs provide a source of uninterruptible power.**
- **Most networking equipment already supports DC power.**

CONS:

- **A DC power distribution system is an added expense.**
- **DC requires bigger power distribution cables than AC power does.**
- **Management of DC systems requires specialized expertise.**

MULTIPLE OPTIONS

One vendor's product offers the option of using either AC or DC power:

QuickLink 53971

How it works: For a diagram and explanation of DC power delivery, see:

QuickLink 54197
www.computerworld.com

Protecting the Crown Jewels

Our security manager explores the options for securing a valuable asset – the company's source code. By Mathias Thurman

SECURITY MANAGER'S JOURNAL

You would probably imagine that a company that writes and sells software would make the protection of that software paramount. That's why it's hard to believe that my company has implemented no comprehensive efforts to protect its bread-and-butter software from falling into the wrong hands.

Fortunately, upper management is finally getting a clue and has asked that we look into the technologies currently available for protecting our source code.

The need to do something is more pressing than ever. It's become trivial to find a place to store a gigabyte of source code (a good portion of our current software inventory), what with the availability of low-cost USB tokens, external hard drives and increased disk space on public e-mail repositories such as Yahoo and Google. Left unprotected, our source code could be moved off-site in less than 10 minutes.

And if clever programmers took the code, they could rebrand, reverse-engineer or replicate it and sell it for profit within a matter of days. If you think I'm exaggerating, recall that more than 800MB of source code from Cisco Systems Inc.'s Internetworking Operating System was posted to a Russian Web site a year ago [QuickLink a5770].

Our programmers use the open-source Concurrent Versions System to save and retrieve various versions of source code. CVS also lets teams of developers share control of different versions of files (source code) in a common repository. The problem is that once a developer checks out source code from the repository, there are no controls to prevent him from copying, moving or transferring the code to a storage device or an FTP site. As much as we'd like to trust our programmers, it's always possible that money or coercion could get someone to take advantage of the lack of controls. And even if that didn't happen, a worm or other type of malicious code could be introduced to our internal network, compromise a user's desktop and give an outsider access to locally stored source code. I could go on for hours discussing the methods and motivations for stealing source code.

Fortunately, there are some fairly significant developments in the source-code protection market. One is software that gets installed on the developer's desktop and then inserts itself into the operating system in such a way that it prevents defined data from being copied, printed or transferred anywhere other than the source-code repository or a dedicated build server. What's nice about this type of technology is its ability to define which directories and files this protection should be applied to. That means that when developers checked out source code, they would be forced to maintain that code in a certain directory, from which they would be barred from copying, printing or transferring. However, they would be free to copy, print or otherwise manipulate other business-related data such as e-mail or other documents, which would be available in a different, nonrestricted directory. Some of the software in this market will also encrypt the defined data.

> **No matter what approach we end up using, a major consideration will be the user experience.**

Looking at Products

Microsoft Corp. and Adobe Systems Inc. both have robust offerings in this market, but they seem to be product-centric. We need something that is product-agnostic, that can be used with data that originates from any company's product. One vendor that seems to have really good potential is Santa Clara, Calif.-based Vormetric Inc. Its CoreGuard product seems to address all of our needs. It allows encryption, access control, integrity protection, alerting and reporting, and most important, it can be configured to be transparent to the user, letting the developers conduct business as usual.

Another interesting technology monitors network traffic for source code in the data stream. An example of this is a product from San Mateo, Calif.-based Tablus Inc. that crawls through your source-code repositories and uses special technology to analyze the data. Then, working in way that's similar to what intrusion-detection software does, it monitors the network and watches the data stream for the "fingerprint" of the source code it has inspected.

No matter what approach we end up using, a major consideration will be the user experience. We'll have to do a considerable amount of testing to ensure that we don't impact a developer's ability to do his job. In our company, developers are treated like kings, since they write the software that brings in the big bucks. If a developer's ability to work is impeded, that in turn could affect the product life cycle, which could hurt our ability to generate revenue.

Because developer workflow is such a high priority, the more passive option — the network approach — has merit. However, it won't prevent users from copying data to a local storage medium such as a CD-ROM or USB thumb drive. Perhaps the best way to secure our data would be a two-pronged approach in which we both protected the desktop and monitored the network. But all of that activity would have to be managed, and we're short-staffed as it is.

We'll probably start asking some of these vendors to come in and demonstrate their products, and then we'll start testing the products. At the end of the day, we hope to come up with an approach that satisfies our information security needs while still leaving our developers free to do their jobs. And if it works out well, we should be able to extend the technology we select to other departments such as legal, human resources and strategic planning.

WHAT DO YOU THINK?

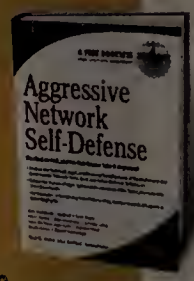
This week's journal is written by a real security manager, "Mathias Thurman," whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com, or join the discussion in our forum: **QuickLink a1590**

To find a complete archive of our Security Manager's Journals, go online to: **computerworld.com/secjournal**

SECURITY LOG

Security Bookshelf

■ ***Aggressive Network Self-defense***, **by Neil R. Wyler (editor), et al. (Syngress Publishing, 2005).**



This book is packed with sensible technical approaches to all areas of information security, as well as interesting scenarios and references to some of the newest tools and technologies. Since I like wireless security, I really enjoyed the description of a common wireless hacking scenario. And be sure to check out Chapter 4, in which a keystroke-capturing program is used to compromise a VPN connection to hack into a pharmaceutical company. This is a must for every security practitioner's library.

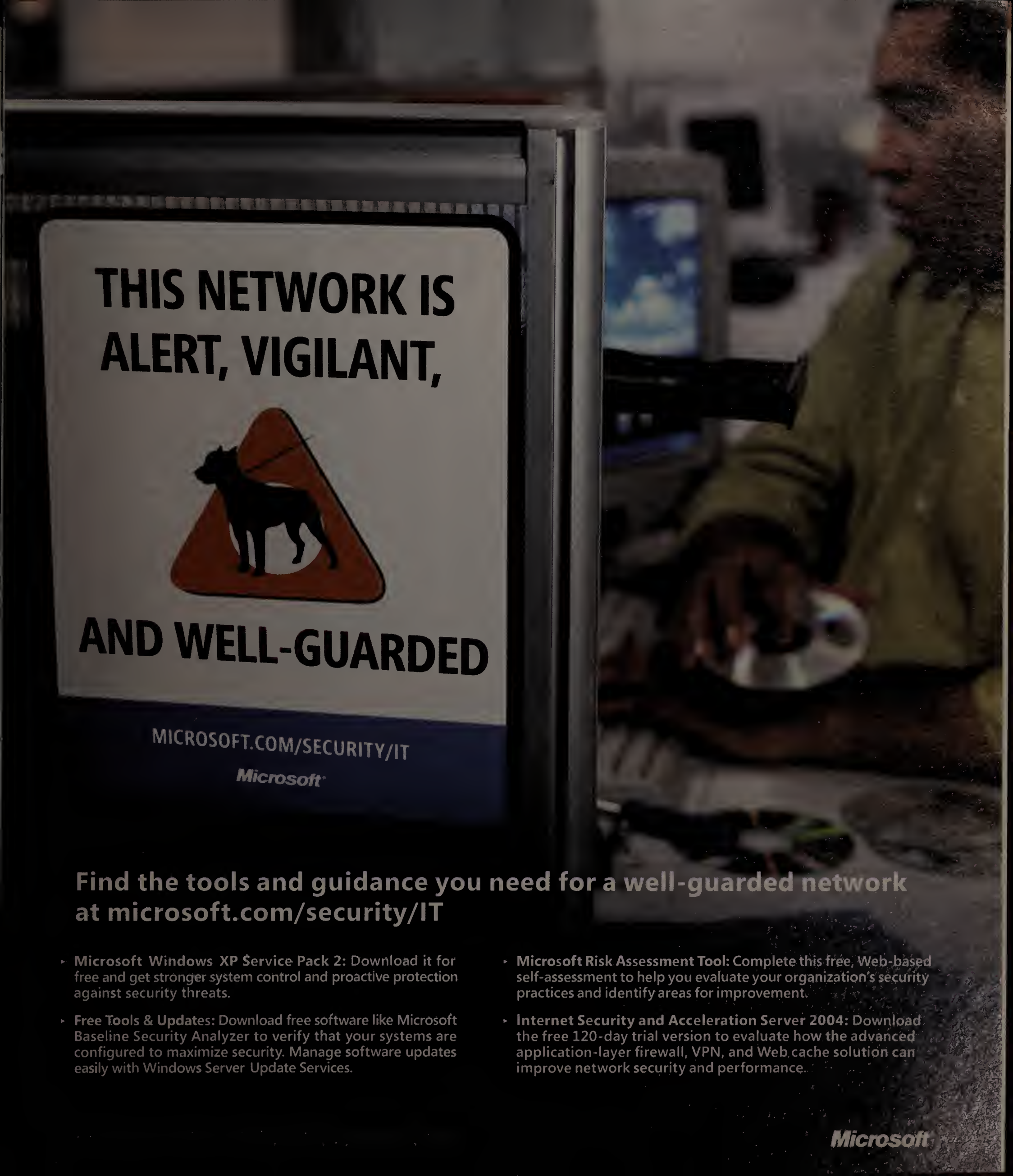
– Mathias Thurman

Alcatel Offers Quarantine App

Alcatel announced its OmniVista 2770 Quarantine Manager for the Alcatel OmniSwitch product line. The tool, which works with intrusion-detection and -prevention systems from third parties, is designed to detect attackers and stop them by quarantining them in a virtual LAN where they can't get access to the network. It's also designed to ban them from reconnecting to the network even if they try to access it from a different location.

Lower-Cost VPN Gateway on Tap

AEP Networks Inc. introduced the Netilla Secure Gateway Appliance Tunnel, a compact, preconfigured VPN gateway that, at $2,495 for 25 concurrent users, is designed to lower the cost of entry for SSL-encrypted application access. The product delivers high-speed performance while providing secure access to an array of Windows applications, according to AEP.



Find the tools and guidance you need for a well-guarded network at microsoft.com/security/IT

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- **Free Tools & Updates:** Download free software like Microsoft Baseline Security Analyzer to verify that your systems are configured to maximize security. Manage software updates easily with Windows Server Update Services.
- **Microsoft Risk Assessment Tool:** Complete this free, Web-based self-assessment to help you evaluate your organization's security practices and identify areas for improvement.
- **Internet Security and Acceleration Server 2004:** Download the free 120-day trial version to evaluate how the advanced application-layer firewall, VPN, and Web cache solution can improve network security and performance.

Microsoft

BRIEFS

ScanSoft Releases New PDF Software

■ ScanSoft Inc. in Peabody, Mass., has released a new application that creates, converts, fills and edits Portable Document Format files. ScanSoft PDF Converter Professional 3.0 allows users to create PDF files from any PC application, provides support for security and encryption, and includes features such as sticky notes and highlighting tools, the company said. The FormTyper feature makes it possible to fill out any PDF form with a single click, while the PDF Converter turns existing PDF files into fully formatted Microsoft Word, Corel WordPerfect or Microsoft Excel documents. Pricing starts at $99 per user.

DataFlux Unveils Data Quality Tool

■ DataFlux Corp., a subsidiary of SAS Institute Inc. in Cary, N.C., last week announced the newest version of its data quality integration suite. Version 7.0 of the DataFlux Data Quality Integration Solution allows companies to enforce business rules like address standardization, product code classification or identity matching to applications and databases that house customer, product, supply chain or finance data, according to DataFlux. The new platform includes a GUI-based design infrastructure that allows business and IT users to build processes to inspect, correct, integrate and enhance data. Pricing starts at $75,000.

Brocade Buys 10% Of Tacit Networks

■ Brocade Communications Systems Inc. in San Jose announced last week that it is buying a 10% share of Tacit Networks Inc. for $7.5 million. Brocade plans to sell South Plainfield, N.J.-based Tacit's iShared wide-area file-sharing software and may eventually integrate the product into its own storage switch.

CURT A. MONASH

Looking Beyond The Big Three

IF YOU WANT TO understand your technology strategy options, my usual advice is that you should study Microsoft, Oracle and IBM. There's hardly a software product category in which at least one of them isn't a market leader and marketing trendsetter. Enterprise applications, personal applications, operating systems, app servers, network management, security, analytics, app development, nontabular data types, search, speech recognition — you name it and they're there. And, of course, in database management, they pretty much have divided the whole market up among themselves.

CURT A. MONASH is a consultant in Acton, Mass. You can reach him at curtmonash@monash.com.

But despite the overwhelming market power of the Big Three, a few other database management systems vendors are still standing, and there are things to be learned from them, too. An interesting matched pair of such companies is Progress Software Corp. and InterSystems Corp., two of the last remaining major independent software vendors in the Boston area. Both started as fourth-generation language (4GL) vendors but soon added matching DBMSs, which, at least nominally, provide the bulk of their revenues. Both sell primarily through indirect channels but derive a large minority of their revenues from direct enterprise sales. Both seem to have decided that object-oriented database and middleware technology is the wave of the future. And that's where the similarities end.

InterSystems is the smaller and less established of the two. But it's also the more interesting company right now, thanks to an unusual DBMS architecture. InterSystems' Cache database manager has a fundamentally object-oriented design. That is, the native DML/DDL (Data Manipulation/Description Language) is emphatically object-oriented, and the access methods are optimized for the storage and retrieval of entire objects. This language is a proprietary outgrowth of the Mumps standard (Massachusetts General Hospital Utility Multi-Programming System), a health-care-oriented 4GL. Naturally, Java and XML are supported as well. In addition, there is a reasonably versatile and effective SQL overlay.

InterSystems would have you believe that the net effect is blazing performance in major applications, not a lot of performance penalty in add-on applications, all the programming benefits of object orientation and only some of the drawbacks of having business logic and data structure intertwined. A look at InterSystems' user base suggests there's some truth to these claims. Transactional systems in areas such as trading floors and telephony billing support the performance claims. The Cache partner catalog does imply that the heart of the business is specialized apps in areas such as patient records — but a few complete back-office suites suggest that the relational features work at least somewhat as advertised.

To understand what's going on under the covers of Cache, recall that the real action in a DBMS usually takes place in the indexing system. Like any other object-oriented DBMS, Cache essentially accesses data via a tree structure that mimics the object hierarchy. In the case of Cache, the index is just as object-oriented as — and indeed stored in the same way as — the data itself. The tree structure, in turn, is implemented via highly multidimensional (and very sparse) arrays with lots of possible subscripts. The whole thing is navigated via relational-like b-trees, which InterSystems insists are rigorously self-rebalancing. And Cache is particularly fast at updating bit-mapped column indices, a nice boost to SQL performance for some complex queries.

Should you use Cache instead of Oracle or DB2? Probably only if a huge performance advantage can be proved for a particular application. But is Cache a harbinger of future directions from the big DBMS vendors? Quite possibly. True object orientation and complex XML are each awkward to support in classical relational structures, and both Oracle and IBM show refreshing willingness to go beyond classical relational dogma.

Progress' story can be construed to somewhat corroborate that of InterSystems. Its main business is actually based on a much more conventional relational DBMS and 4GL. Although mature, that segment remains fully competitive, and Progress is vying with Oracle and Microsoft for "embedded" DBMS market leadership. Credit for this goes to Progress' historical focus on indirect sales and to some historical product advantages, such as a no-DBA RDBMS and what was once the best 4GL available. But even so, Progress' core techies now think the future is in object-oriented DBMSs (and associated middleware) as well. And while they flirted with pushing XML over object orientation as the post-SQL DBMS paradigm, like InterSystems they now espouse object orientation as the data architecture wave of the future. **54172**

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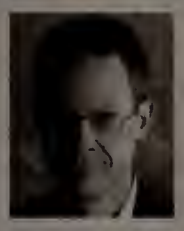
Lurking Liabilities In Security Law

Some laws and regulations get all the attention, but others that might fall outside your radar are just as important. Here are five legal issues to watch out for in the realm of information security. **Page 31**



Q&A

The End of Corporate IT

Love him or loathe him, you'll want to read what Nicholas Carr has to say about the (short) future of your in-house IT group. **Page 32**

OPINION

Management Controls: A Lost Art

Good management controls are the basic blocking and tackling of IT, says Bart Perkins. Letting controls at your company grow lax can set you up for embarrassment and failure. **Page 36**

ILLUSTRATION BY JOSEF GAST

IT pros say user groups can offer new perspectives and big paybacks for your organization and your career. **By Rick Saia**

View: A Broader

ABOUT 25 YEARS AGO, Robert Rosen and his bosses were engaged in "big debates" about IT staffing levels at the federal agency at which he was working. To find answers, he sought comparative numbers from other organizations that were running similar systems.

Rosen had already been a member of the Share user group for about a decade, so he didn't have to look too far to find what he needed. Fellow members supplied him with the data. He assembled a full report and sent it along to management. "That helped me significantly," says Rosen, now a CIO in the federal government. "That kind of made my reputation as [someone who can] get outside our little focus area" and come up with other perspectives.

That, many say, is the most important of several benefits user groups provide IT professionals and — by extension — their organizations. Others include networking with various IT professionals, getting the lowdown on the latest vendor releases and influencing vendor offerings through feedback on products.

User groups are increasingly valuable today as some vendors target other companies for merger or acquisition. "Vendor consolidation, such as Oracle Corp.'s acquisition of PeopleSoft, has [required] IT professionals to look to user groups for information," says Foad Fadaghi, research director in the technology practice at Frost & Sullivan Ltd., a global business consulting firm.

"IT professionals can use their user groups to understand what others are doing in the face of consolidation," says Fadaghi, noting that information about how peers are dealing with migration, account management and integration issues "can empower the buyer."

Groups also advocate for users during a takeover by "kind of waving the flag, saying 'Don't forget about us!' " says Julie Silverstein, chief operating officer at SmithBucklin Corp. in Chicago. SmithBucklin provides management and professional services to about 20 user groups, including Encompass, Share, the Americas' SAP Users' Group and InSight.

And, as the Quest International Users Group discovered earlier this year, vendors listen. Quest focuses on PeopleSoft World and J.D. Edwards' Enterprise One software, and since Oracle bought PeopleSoft in January, "there has been a lot of interest [from Oracle] in what customers think," says Quest President Fred Pond. Pond is also director of information services at Schnitzer Steel Industries Inc. in Portland, Ore.

Fadaghi says an IT professional who is looking to join a

In Focus

As of last September, there were 1,428 computer user groups in the U.S., according to SoftPressRelease.com, an international press-release distributor for IT media. Here are the basics on six of them:

Share
- **Focus area:** IBM products for IT professionals. Originally focused on mainframe programming but has evolved to include areas such as AIX, Linux, application development, security, integration and management.
- **Founded:** 1955
- **Members:** More than 15,000
- **Major event:** Semiannual Share User Events
- **www.share.org**

Americas' SAP Users' Group (ASUG)
- **Focus area:** SAP's enterprise resource planning software.
- **Founded:** 1991
- **Members:** 45,000
- **Major event:** ASUG Annual Conference & Vendor Fair
- **www.asug.com**

InSight
- **Focus area:** McKesson technologies for the health care industry, including hospital-wide resource, revenue, clinical and automation systems.
- **Founded:** 1994
- **Members:** 3,500
- **Major event:** InSight Annual Conference
- **www.insight-net.org**

Encompass
- **Focus area:** Hewlett-Packard technologies (and legacy Compaq and Digital products), including Linux, storage, HP-UX, Tru64 Unix, OpenVMS, Enterprise Windows Servers, security and networking.
- **Founded:** 1961 (formerly known as DECUS)
- **Members:** More than 10,000
- **Major event:** HP Technology Forum
- **www.encompassUS.org**

International Oracle Users Group (IOUG)
- **Focus area:** Oracle technologies
- **Founded:** 1993
- **Members:** 14,000
- **Major event:** IOUG Live
- **www.ioug.org**

Quest International Users Group
- **Focus area:** PeopleSoft World and J.D. Edwards Enterprise One software
- **Founded:** 1995
- **Members:** More than 8,000
- **Major event:** Quest Conference & Expo
- **www.questdirect.org**

user group should determine the value he can derive from it. Things to look for include independent speakers at events, high levels of member participation and testimonials from peers.

Here's a look at four representative user groups:

1 Encompass

A Hewlett-Packard Co. user group, Encompass is no stranger to mergers, having lived through HP's purchase of Compaq in 2002 and, four years earlier, Compaq's acquisition of Digital Equipment Corp. (Encompass was formed in 1961 as DECUS, a user group for Digital products.) Many of its more than 10,000 members come from the technical side of IT, though many are influential enough in their organizations that they report to the IT director or the CIO, says Kristi Browder, director of IT at Silicon Laboratories Inc. in Austin and Encompass' president.

Like most user groups, Encompass sponsors annual events and local chapter meetings where members can exchange IT knowledge, Browder says.

It has also started using the Web as a vehicle to enhance interaction. For example, Encompass hosts a monthly webcast on a chosen issue (a recent topic: concepts in storage-area network design) and touts four special interest groups — focusing on enterprise Unix, OpenVMS, enterprise storage and Linux — in which users can learn more about HP technologies and help one another solve problems.

2 Share

In 1955, two years after IBM released its first computer, Share became the world's first user group. Its member list of more than 2,000 organizations includes most of the Fortune 500, along with universities and colleges and federal, state and local government organizations. Each of the group's semiannual conferences offers five to seven sessions daily, and the information sharing continues into the evenings at social events, Rosen says.

Over the years, he has heard stories of how Share conferences have helped solve members' problems or boosted careers. Rosen tells of a member who came to a conference despite a costly technical problem she was facing at the office that would probably take two to three months to solve. After taking in a session, she sought out the speaker, who wrote down a few lines of code that saved her company more than $100,000 in code modification. "It's the little things that are really the big payoffs," Rosen says.

3 Americas' SAP Users' Group (ASUG)

Fifteen years ago, German software maker SAP AG trained its sights on the Western Hemisphere for its ERP products. At SAP's annual conference, a group of U.S. attendees decided to form a users' group, something the organizers and the vendor felt would help SAP's efforts, according to the group's current president, Karen Chirico, who is also manager of Honeywell Corp.'s Aerospace Financial Center of Excellence in Phoenix.

The group and SAP agreed that they needed to band together. SAP wanted to learn how business works in the U.S., Chirico says. On the user side, she adds, "the Americas had absolutely no concept of what an ERP system was."

Today, ASUG has more than 30,000 members, covering about three quarters of SAP Americas' customer base. The annual spring conference provides opportunities for face-to-face interaction, and there's also a Web-based member network in which a member with a problem can outline it in hopes of finding another member who can help him solve it.

4 InSight

As health care organizations deal with issues of cost control, managed care and patient privacy, they lean more heavily on technology. That's where a group such as InSight can play a key role, according to Cyndi Jones, InSight's president and CIO at St. Luke's Health Network in Bethlehem, Pa. "In this environment, where there's so much [going on in IT], the value of this user group is that you can really optimize the products faster," she says.

InSight represents customers of McKesson Provider Technologies, a subsidiary of health care IT vendor McKesson Corp. Membership has increased 10% to 15% in the past two years as a result of increased industry investment in IT, according to Jones. Despite the group's independence, McKesson's involvement has been "very intense and very collaborative," as well as quite supportive, providing money for various functions and speakers for group events, Jones says.

InSight holds an annual conference and trade show that draws about 3,500 to 4,000 attendees and is growing each year. It also provides members with an opportunity to become involved with committees and projects. In addition, members take an active role in monitoring online discussion boards on the group's Web site.

User Group/Vendor Tango

There was a time when user groups and IT vendors had testy relationships, SmithBucklin's Silverstein says. But today, both sides realize that they need each other. And while organizations that pay for employees' user group memberships expect a return on that investment, "vendors today want an ROI too," Silverstein says.

Vendors see user groups not just as sales vehicles, but also as feedback mechanisms, she explains. The vendors provide speakers for group events and attend trade shows, looking beyond sales and marketing opportunities for focused feedback on products.

User groups are "a big part of our investment each year," says David Parsons, vice president of Americas enterprise marketing at HP. The four groups HP works with are "invaluable constituent communities" that provide a broad range of perspectives and ideas, so "we want to preserve and protect that," he says.

For users, regular, face-to-face meetings, ongoing forums and Internet bulletin boards are all useful, says Fadaghi at Frost & Sullivan. And in the future, he says, "more of these meetings will be global and facilitated through videoconferencing, webinars and chat rooms."

Regardless of the vehicle, members cite the personal interaction in helping solve a work-related problem that you can't get from a book and might not get from a class costing hundreds of dollars more. "The most important return on investment is your ability to help the company," says Silverstein. "The payback has got to be in your job. If you work for a corporation, the things that you learn are just tremendous."

Your organization expects you to know the technology, Share's Rosen adds. So calling on a peer network that comes from a user group can help keep the organization humming, keep you employed and possibly help advance your career. These, he says, "are the really big payoffs." **59380**

Saia is a business technology writer and editor in Shrewsbury, Mass.

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Lurking LIABILITIES IN SECURITY LAW

BY MARY K. PRATT

Five new legal issues in security can cause trouble for the unwary CIO.

CIOs HAVE A NEW NAME TO KNOW: ZUBULAKE. And if they don't, they could be heading for trouble.

Zubulake is shorthand for the case of Zubulake v. UBS Warburg LLC, which was heard recently in a federal court in New York. The court's decisions in that case established new standards for retaining electronic data.

"The courts are increasingly depending on companies and their lawyers to produce electronic evidence and to make sure it's not destroyed," says Adam Rosman, a lawyer at Zuckerman Spader LLP in Washington. "It was an obligation that didn't previously exist."

CIOs have had to contend with hackers, worms and viruses for years. And they're getting a handle on new federal regulations that set additional security requirements. But even veteran IT executives may be ignorant of some crucial aspects of security law, like the requirements coming out of the Zubulake case, lawyers say.

These security measures, while important legally, fail to attract adequate attention because they're evolving standards, they're mixed in with responsibilities traditionally handled by other executives, or they're simply downplayed by the executive suite.

But CIOs need to make these new obligations a priority or live with increased risk of legal action. "There is some important work to be done to bring the CIO and the security officers up to speed," says J. Beckwith Burr, a partner at Wilmer Cutler Pickering Hale and Dorr LLP, which has headquarters in Boston and Washington.

Here are five security concerns that might have eluded some CIOs:

1 A THREAT OF LEGAL OR REGULATORY ACTION against your company should spur you to adopt more-conservative data-retention procedures. This is just as important as abiding by the rules for data storage that have emerged from the Zubulake case and better-known mandates, such as the Sarbanes-Oxley Act. "When you get wind that someone might be thinking of suing you, you have to immediately change your document destruction procedures so you don't destroy anything that might be evidence," says Stuart Meyer, a partner at Fenwick & West LLP in Mountain View, Calif. "You can be sanctioned to the tune of millions of dollars — and many companies have — because they didn't suspend their normal procedures."

2 SECURITY THREATS FROM EMPLOYEES represent another often-overlooked risk that could land CIOs and companies in legal trouble. Some employees act maliciously, but others are duped. For example, a federal report released earlier this year found that 35 out of 100 managers and employees of the Internal Revenue Service provided their network log-on names and temporarily changed their passwords when asked to do so by U.S. Department of the Treasury inspectors posing as computer technicians.

Companies have an obligation to secure their information, even from their own employees, says Robert M. Weiss, a partner at Neal, Gerber & Eisenberg LLP in Chicago. For example, if an unauthorized employee accessed another employee's personnel file, officers and the company itself could be sued.

3 CORPORATE RELATIONSHIPS WITH THIRD-PARTY SERVICE PROVIDERS also present potential legal problems, lawyers say. For example, most contracts today limit the liability of outsourced providers to the cost of the contract. "So if there is a security meltdown, contractually the vendor isn't responsible," Burr says. That means that regulators, shareholders or corporate clients could go after the company — not the provider — if there were a breach.

"The question is how you meld your legal and procurement function with your IT function with your privacy operations and your security operations," Burr says. "There's a lot of communication that needs to go on to make sure all the bases are being covered."

A Culture Of Security

Attorneys and other legal experts caution that the best defense against being caught unaware on security law is to hard-wire security into the culture of your company. Here are some ways to work toward that end:

- **ADVOCATE** for a security committee at the board of directors level.
- **ADEQUATELY FUND** budgets for security-related initiatives.
- **EDUCATE** employees that security begins at their own desks.
- **INCORPORATE** security into system design.
- **APPOINT** an IT risk assessment officer to consider scenarios and responses.
- **FORM** new internal partnerships among IT, business and legal departments to collaborate on security.

– Mary K. Pratt

4 CHANGES IN BEST PRACTICES have come quickly with new laws, regulatory requirements and court decisions, and the implications could go well beyond initial expectations. Take, for example, federal laws such as the Gramm-Leach-Bliley Act, the Health Insurance Portability and Accountability Act and Sarbanes-Oxley. They have security mandates for specific segments of the economy: financial services, the health care industry and public companies.

But these and other laws set "standards of care" that courts everywhere might rule apply to all companies — even those not specifically covered by the laws, Meyer says.

"The general notion is if you act as a reasonable person would act, you shouldn't be held liable," says Greg Lippetz, a partner at Boston-based Bingham McCutchen LLP. "But 'reasonable' today is different than three years ago. The bar is rising."

5 DOUBLE-EDGED AUDITS also pose a challenge. Most CIOs know that security standards are changing, and many use audits to find holes in their companies' policies and procedures. But audits themselves can cause legal trouble if companies don't follow up quickly on the results.

"If you have knowledge of a security gap and you don't correct it and something happens, it's hard to escape liability," says David MacDonald, a New York-based partner at Kirkland & Ellis LLP.

On the other hand, companies that fail to make reasonable efforts to find security gaps may also be liable.

That's why CIOs need to get cracking, lawyers say. They must educate other executives about the legal need to meet these new standards so they can get the money, time and staff they need to do the job.

"The most effective way to address security within a company is to take a very practical approach where you get executive buy-in and the resources you need to educate folks, deploy the technology, monitor it and reconstruct what happened if you have breaches," says Karen L. Casser, a partner at Symbus Law Group LLC in Washington. "That way, you put your company in a position to argue that you did your due diligence." **53960**

Pratt is a Computerworld contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.

The End OF CORPORATE IT

Nicholas Carr is at it again. This time, he envisions a future where IT has gone the way of the electric generator.

Nicholas G. Carr

Q&A

In the spring issue of the *MIT Sloan Management Review*, Nicholas G. Carr continues his controversial writings about the future of IT. His ideas have been vilified and embraced, but no one has called them boring. This time, he told *Computerworld*'s Kathleen Melymuka that the corporate IT department is an idea whose time has almost gone.

You call your article "The End of Corporate Computing." Why? Up till now, it's been assumed that companies have to own the basic assets involved in computing. I think we're moving to a time when that assumption will be overturned and those assets will begin moving from within companies to more centralized utility suppliers.

It's a shift similar to what we saw 100 years ago, when all manufacturers maintained their own electric generators to power machinery. Over 20 or 30 years, they shut down those generators and began to buy electricity from utilities. Just as today we wouldn't talk in terms of corporate electricity generation, I think tomorrow we won't talk in terms of corporate computing.

There has been lots of discussion over the past few years about utility computing. What's different about your take on it? I try to look at the economics of business computing as opposed to the technology of utility computing itself. I argue that up till now, a lot of the utility computing discussion looked at isolated instances of hosted applications, like Salesforce.com or one company hosting another's Web sites. It's easy to believe this is a fragmented phenomenon that will have a bunch of companies providing a limited number of outsourced services.

I believe it's a much bigger wave of change in that today's entire model of business computing is built around fragmentation of basic assets — everyone having to buy what, in many cases, is similar equipment and software. All that stuff will ultimately be centralized outside companies, and that will lead to much greater efficiency that will translate into lower costs and greater reliability for users.

Assuming you're right, this is more of a gradual evolution than a "sky is falling" event, right? Absolutely. We're not going to wake up tomorrow and get all our computing requirements through a socket in the wall. It will take a couple of decades for this to roll out. It's a matter of utility suppliers slowly building up enough scale and enough expertise that they can replace ever larger internal data centers.

It tends to start with smaller companies that find it difficult to buy and maintain their own systems. Those are the first ones to move to a utility model. As the utility model gains greater efficiency, it will get scale advantages over larger corporate IT functions.

The utility model brings dependence on a single vendor, which reasonably worries IT folks. How would you keep the utility honest? That's a good question, because beyond the interests of individual users, there's a danger of too much of this very important infrastructure falling into the hands of too few companies.

It's critical that there continues to be competition both at the level of the utility and of component suppliers to the utility. Don't think hardware and software companies will go away; they'll just shift from supplying the user to supplying the utility company. So it's critical at the highest level to ensure strong competition between all those parties. Eventually, as with electricity, it may require the government moving in to ensure that there isn't too much consolidation.

DANGEROUS MINDS
Nicholas Carr discusses the sometimes hostile responses to his ideas:
QuickLink 53977
www.computerworld.com

At the individual company level, there are certain risks involved in consolidating your assets with one supplier, but also considerable gains. Ultimately, those advantages of getting rid of the responsibility for expensive, finicky assets will come to overwhelm fears of letting somebody else run this.

Looking at the electricity analogy, electricity doesn't involve the kind of security risks inherent in data transfer. How does security fit into this picture? I think that ultimately centralizing control over a lot of the basic IT infrastructure will actually increase the level of security over the current highly fragmented and distributed model. Where IT is more distributed, it's more vulnerable in many ways. One of the advantages of a utility model is that the entire success and fate of the utility hinges on its ability to maintain security.

Having said that, there are certainly different security issues when you have consolidation of data, and at a technology and policy level, it's going to take some innovations and advances to get to the level of security necessary for really large-scale utilities to emerge. But over time, economics will drive those and it will happen.

You say an outside supplier will take responsibility for all of a company's IT requirements – from infrastructure and storage to applications. Isn't that like expecting the power company to also supply your light bulbs, TV and vacuum cleaner? Not really. A key difference [between electricity and IT] is the number of layers of applications, and I don't mean just application software. With electricity, you had generation and uses that had to take place locally — like the vacuum. With IT, there's the basic infrastructure, then a layer of application software that can increasingly be run remotely. Then how the outputs of that application software are used by companies — that's the "vacuum" layer that will stay local.

Companies will still have to figure out how to best use the information in software applications and how to adapt processes and do all the stuff that you need to do today. The difference is that someone else can worry about all the underpinning.

In your vision, does anything recognizable as IT still exist? Under this model, what we now call an IT department is unlikely to continue to exist in its present form, but I think you'll still need people that combine deep technical knowledge with strong business and process knowledge, because there is still going to be a need for that person who can translate everything you're buying from outside providers and interface that to your own processes.

If you make the assumption that recently IT departments have begun to shift to more of a process and business focus, in some ways this will be a continuation of that shift. 53976

Late TO THE DEBATE?

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In a Q&A based on his article in *Harvard Business Review*, Carr argues that IT has become so pervasive that it offers little strategic advantage.
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A virtual roundtable of IT experts rebuts Carr's argument.
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Bob Metcalfe and Carr square off at the Premier 100 IT Leaders Conference on the question of whether IT really offers companies a competitive advantage.
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Reflections on Turbulent Times
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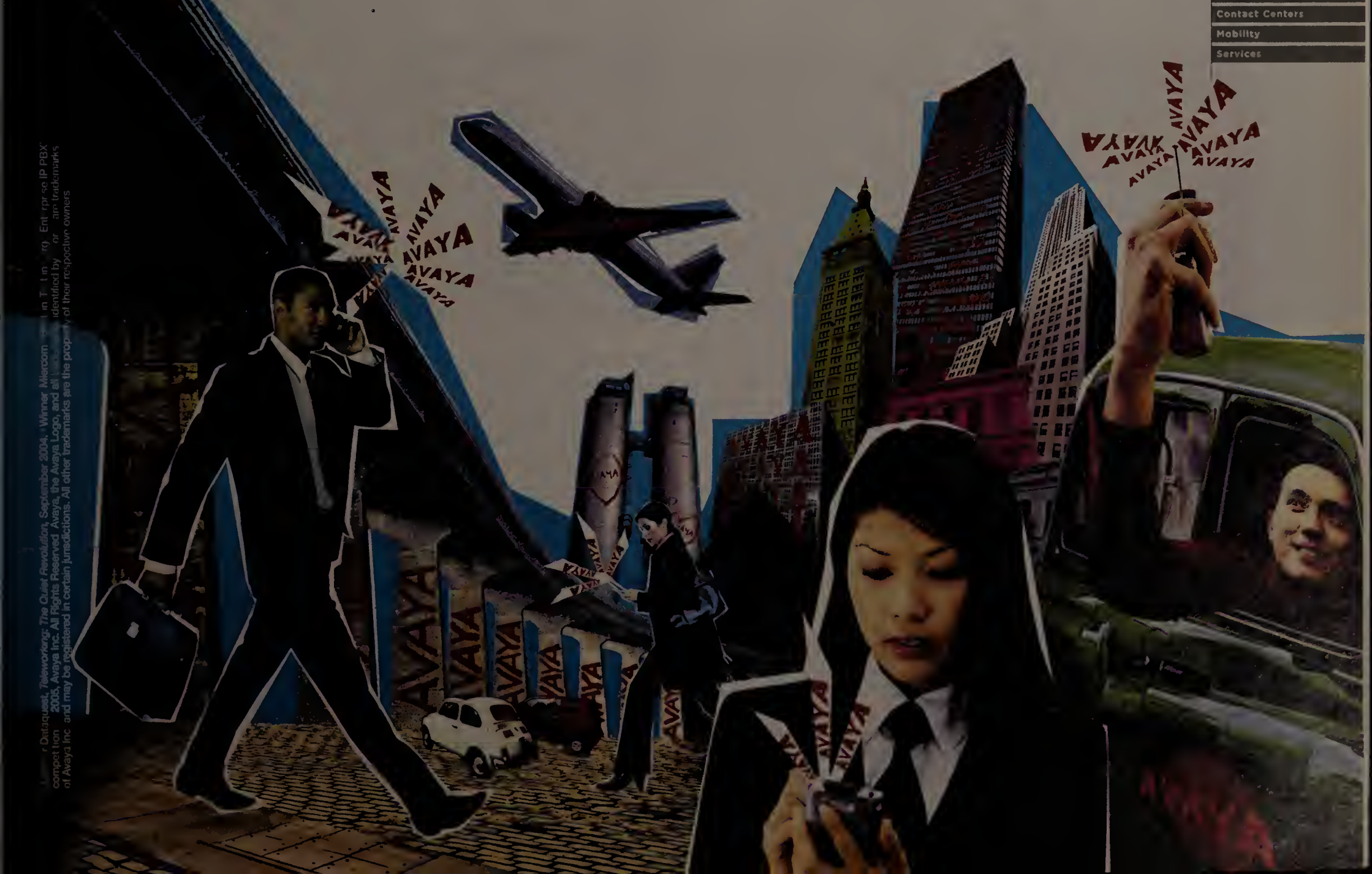

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Career Watch

[22%] Rise in job postings on Dice.com since the beginning of the year.

The Lake Wobegon Effect

Letters of recommendation are standard for job applications, but are they really useful? They are if you know how to read them, says Mike Aamodt, an organizational psychologist at Radford University in Radford, Va.

Naturally, job applicants ask someone for a recommendation only if they think it's going to be positive. Aamodt says that of nearly 6,800 different reference ratings he's studied, 96% placed the candidates above average. "It's like Lake Wobegon, where Garrison Keillor says that all children are above average," says Aamodt.

"Nevertheless," he adds, "reference letters can provide valuable insight about a candidate if read correctly." The key to deciphering the reference letter is to break it down into the key words or traits used to describe the candidate. If an applicant is called "accurate," "detailed" and "careful," that could be a good sign, because those are positive indicators for certain types of jobs. On the other hand, referring to a person as "creative" or saying he "works fast" may send a completely different message.

"If you are trying to build a team," Aamodt suggests, "look for words [or phrases] like 'agreeable' and 'gets along with others.'"

Aamodt presented his findings recently at the annual meeting of the Society for Industrial and Organizational Psychology in Los Angeles.

– *Mark Bard*

Q&A

Karen M. Rubenstrunk

TITLE:
Senior client partner

COMPANY:
Korn/Ferry International, Tysons Corner, Va.

Having recently decamped from the former Meta Group, where she spent 10 years providing counsel and advice to Fortune 500 CIOs, Karen M. Rubenstrunk is still interested in what's going on at the top of the IT organizational food chain in her new role at executive recruitment firm Korn/Ferry. She spoke with contributing editor Jamie Eckle.

What are companies telling you that they're looking for in senior IT leaders these days? Have the must-have characteristics changed in recent years? The must-haves haven't changed. I have a tendency to be fairly cynical about this idea that the CIO has suddenly become a business leader, needs to be from the business, technology is secondary, etc. The reason I am cynical is that the job description for most CIOs reads fairly close today to what it did two years ago.

What is different, however, is which skills are at the top, which skills are being tested the hardest through the interviewing process, and the percentage of clients actually hiring to the job spec. Clients want a multifaceted executive who has the business acumen to run a business unit whose products and services are technology-based. Communications skills, relationship management skills and financial (read: value) analysis skills have moved to the top of the list. From an interviewing perspective, clients are looking for indications of resiliency, incredibly crisp communications and passion. I believe this is happening for two reasons: 1) The CIO today is much more involved in maximizing the effectiveness of end-to-end integrated business processes. That means that the executive must be able to play cheerleader and chief negotiator across multiple business units. And 2) CEOs are beginning to recognize their own role, and the role of their executive team, in the success of the technology investment.

KAREN M. RUBENSTRUNK ON CIO HIRING . . .

The CIO hiring pendulum seems to be swinging back from business to technology. It may be that technology is too complex, and the impact too great, to risk failures because of poor IT negotiation skills or inadequate understanding of technical architecture and integration issues.

Any difficulty in finding candidates who have the qualities companies are looking for? Yes, it is a seller's market right now. If you think about it, a great CIO is a great CEO: an executive who is responsible for setting a compelling vision for the future while at the same time assuring that day-to-day operational excellence provides the opportunity to be in business in the future. You're talking about an executive who is an excellent communicator, both strategic and tactical, and, oh by the way, also has deep understanding for the power of technology. So if you look at it, it's as hard to find that perfect CEO as it is to find that perfect CIO. If you access our research on CEO and CIO profiles, you'll see that the profiles of the most successful CEOs and CIOs are quite similar – a great leader is a great leader.

Now, on a more concrete note, we have had 50 CIO searches open up in one of our verticals alone within the last 24 months. The demand is outstripping supply. As a result, I have noticed a much greater willingness on behalf of CEOs, CFOs and COOs to be coached in how to construct the job so as to attract the right candidate.

What's the level of CIO turnover these days? It's about the same as it has been. Again, having spent 10 years hip-deep in working with CIOs, I had a hard time believing that *CIO* ever meant "career is over" or that the average tenure of CIOs was 24 months. I believe it is actually more stable than the press reports. However, I also know from professional and personal contacts that many more CIOs are looking to change companies within the next year. I believe there is a growing sense of "been there, did it, ready to move on" as much as there is a growing discontent with the overall influence of the CIO within the executive team. **53907**

. . . AND CIO WANDERLUST

- Many CIOs are actively looking or plan to look for a different job within the year.
- Despite rising salaries and business, good to great CIOs are still looking. Many of them [illegible] that they've gone as far as their companies can take them.

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EXEC TRACK

Xilinx Taps Cooney

Xilinx Inc., a San Jose-based maker of programmable logic software, has appointed **KEVIN COONEY** from its Dublin offices as corporate vice president and CIO. Cooney served previously as Xilinx senior director of IT and business development for Europe, the Middle East and Africa. He will continue as a member of the board of directors at Xilinx Ireland and will run global IT operations from Xilinx's European headquarters in Dublin. Prior to joining Xilinx 10 years ago, Cooney served in a variety of executive positions at Digital Equipment Corp.

U.S.I. Names CIO

C. JEFF PAN as been appointed CIO and senior vice president for business transformation at U.S.I. Holdings Corp. in Briarcliff Manor, N.Y. Pan is responsible for transforming the company's processes for IT, accounting and administrative services to a more efficient model. Pan joined U.S.I. in February through the company's acquisition of Summit Global Partners, where he had been president since 2003. He has also served in senior positions at California Federal Bank, Ford Capital Ltd. and First Gibraltar Bank.

Sadiq, Helm to Lead At Drugstore.com

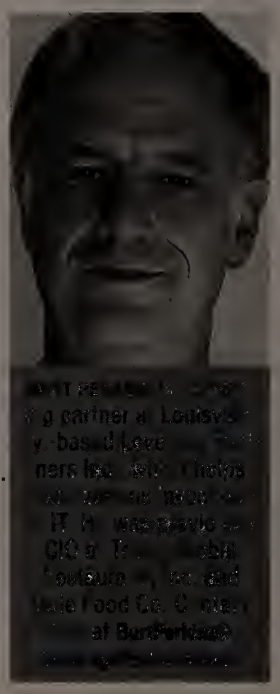
Drugstore.com Inc., a Bellevue, Wash.-based online provider of pharmacy products, has appointed **TALAT SADIQ** CIO and **JOHN HELM** chief technology officer. Sadiq will oversee all aspects of technology planning, development and operations. Helm, who will report to Sadiq, will be responsible for the overall IT architecture and day-to-day technology operations. Most recently, Sadiq was vice president of strategic business development at iSpheres Corp. Helm was previously head of architecture at Merrill Lynch & Co. and taught in the department of applied physics at Columbia University.

BART PERKINS

Management Controls: A Lost Art

THE BASIC MANAGEMENT CONTROLS required to run an effective IT organization are quickly becoming a lost art. Many companies have lost touch with the fundamentals of IT management. The industry originally learned these fundamentals during the 1970s and '80s, but today there are large numbers of IT organizations with surprisingly weak management controls.

As a result, these companies are often unable to perform basic IT functions, such as building coherent business cases, assessing project risk and developing accurate capacity plans.



How did this happen? The enormous expenses associated with Y2k, and the huge losses induced by the dot-com bubble bursting, produced more animosity than gratitude toward IT. Many IT organizations (and CIOs) lost significant credibility in the post-Y2k era. Management's desire to cut back on IT was exacerbated by a struggling economy and falling profits. Consequently, most IT budgets were cut severely and repeatedly. Virtually everything beyond maintenance for existing systems often got axed, leaving few resources for new development.

To complicate matters further, the industry lost many experienced executives. CIOs grew tired of the never-ending budget wars and constant attacks, and many (who could afford to) retired. Unfortunately, they took their expertise with them. The CIOs who replaced them often lacked expertise in delivering new applications, since their experience was acquired in an era dominated by maintenance.

For that reason, many IT organizations no longer understand how to prioritize projects effectively, establish cost accounting procedures or accurately estimate a new system's production costs [QuickLink 49668].

For example, one client recently requested a "sanity check" on a $500 million plan to redevelop its legacy applications. The review revealed that the ongoing production costs for the new applications had been underestimated by roughly $40 million a year. The CFO postponed his presentation to the board of directors and sent the program team back to the drawing board, before the erroneous numbers became set in stone. Unfortunately, many CFOs don't learn of such errors until they show up as significant budget overruns, when it's too late to reset expectations.

Insufficient management controls also complicate outsourcing efforts. Without accurate business cases, you may make the wrong outsourcing decisions. And afterward, your ability to work well with your outsourcer will rely heavily on areas such as capacity planning, specification review, change control, acceptance testing and cost accounting — basic management controls. Without these controls, you will have difficulty selecting, managing and benefiting from your outsourcer.

In order to upgrade your management controls, focus on basic blocking and tackling:

■ **Adopt well-understood management practices.** Unfortunately, IT doesn't yet have an equivalent of generally accepted accounting principles or a Financial Accounting Standards Board to establish industry standards. However, well-defined procedures for systems development, change control, problem management and so on are available from sources such as consulting and research firms. Some companies are starting to use the IT Infrastructure Library framework from the U.K., although it isn't yet widely used in the U.S.

■ **Leverage existing expertise.** Basic controls are well understood by "gray hairs" in the industry. Get advice from experienced executives or outside experts to speed the process and avoid reinventing the wheel.

■ **Enlist internal support.** Partner with internal audit or accounting to help build the case for establishing strong internal management controls. Regulations such as the Sarbanes-Oxley Act, the USA Patriot Act, the Health Insurance Portability and Accountability Act and Basel II (regarding financial services) all demand strong controls to ensure compliance. Moreover, internal audits can often provide valuable feedback regarding the quality of any existing controls.

■ **Develop a rollout plan for implementing new controls.** Don't attempt to establish all the needed controls at once. In large corporations, this effort can easily require years to finish. Break up your control improvement program into a series of interleaved projects.

■ **Don't give up.** Although basic controls are necessary, they are often unpopular. You will probably face resistance from people who don't like structure. Persevere!

Basic management controls are critical to successful IT management. They bring much-needed discipline to your organization and enable you to deliver products and services more effectively.

The success of your IT organization depends largely on effective use of basic management controls. Refocus on the basics. **53959**

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COMPUTERWORLD SURVEY

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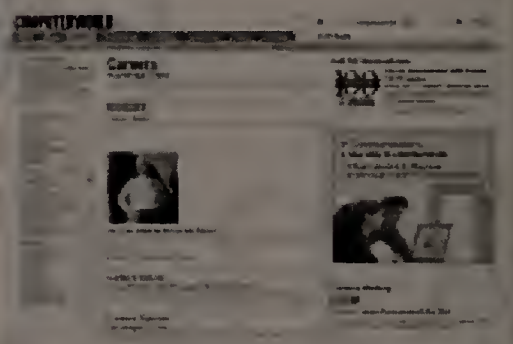

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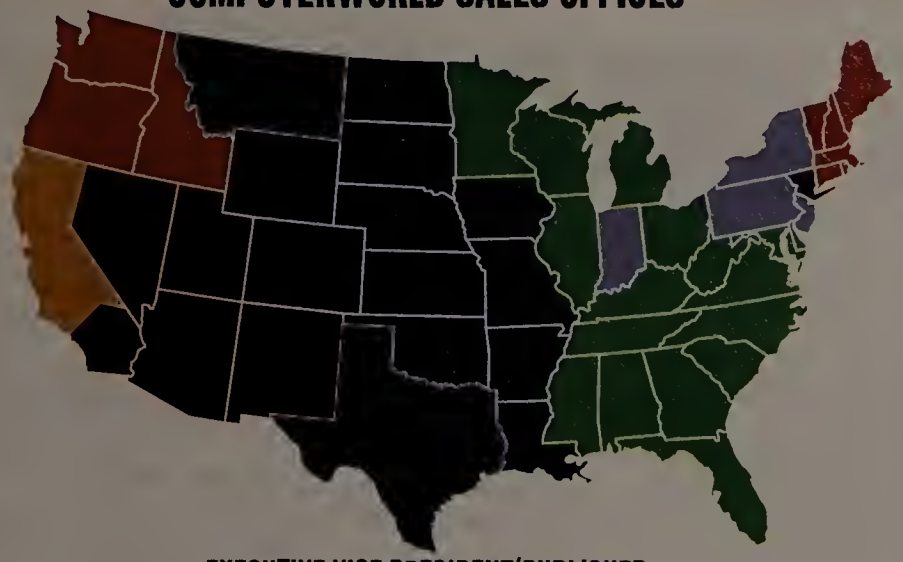

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Oracle

For example, the quarterly schedule for releasing security updates that Oracle adopted last fall is a sore spot for Arup Nanda, director of database engineering and operations at Starwood Hotels & Resorts Worldwide Inc. in White Plains, N.Y. The company runs Oracle Database 10g in a Real Application Clusters configuration, and Nanda said large software patch kits can be challenging to install. He would rather be sent patches as they become available.

Thompson said users can, in fact, access patches themselves from MetaLink whenever they want, though only quarterly patches are automatically sent to users.

Other users said they prefer the regular patch distributions, which include best practices information and are more standardized than one-offs, said Ari Kaplan, incoming president of the IOUG and president of Expand Beyond Corp., a wireless management software vendor in Chicago.

Thompson, who delivered a keynote at the conference, had served as CIO at PeopleSoft Inc. until Oracle acquired it in January [QuickLink 51831].

Responding to customer demand, Oracle will now support each release of its database and Oracle Application Server for five years, starting with Version 9.2 of the database and Version 10.1.2 of the application server, Thompson said. Oracle previously provided three years of service.

Thompson said the new MetaLink content has been available since January. The offering now includes live product demonstrations, hundreds of tips for users and an enhanced search engine to help direct customers looking for specific information or work-arounds.

Since late last year, Oracle has also been offering Web collaboration technology to help customers directly link up with a technician to troubleshoot problems, Thompson said. The sessions allow Oracle technicians to more quickly diagnose problems, speeding up resolution times by 30%, or about 20 minutes per diagnostic session.

Oracle expects the improved support tools will help users cut administrative costs and thus ease its reputation as a costly database supplier, said Rebecca Wetteman, an analyst at Wellesley, Mass.-based Nucleus Research Inc. The improved support should help users get by with fewer administrators, she said.

John Matelski, deputy CIO for the city of Orlando, had expressed concern about support when the Oracle-Peoplesoft deal closed. But he said Oracle is "clearly making significant strides to continue to support, sustain and educate their customers." The city runs financial applications that were developed by J.D. Edwards & Co., which Oracle acquired when it bought PeopleSoft. **54246**

Oracle User Groups Unite on Conference Plans

THE IOUG and two of Oracle's other user groups said last week that they're banding together to hold a combined annual conference starting next year.

In a similar announcement, Oracle rival SAP AG and its independent user group for the Americas region said they plan to hold their U.S. conferences back to back in the same location next spring.

The database-oriented IOUG is teaming up with the Atlanta-based Oracle Applications Users Group (OAUG) and the Lexington, Ky.-based Quest International Users Group, which is made up of the J.D. Edwards & Co. application users that Oracle inherited when it purchased PeopleSoft Inc. earlier this year.

The initial combined event, dubbed Collaborate 06, is scheduled to be held next April in Nashville and will include educational sessions and keynote speeches by Oracle employees, according to a statement issued by the three user groups.

Incoming IOUG President Ari Kaplan said that each of the user groups will manage its own specific set of sessions. For instance, the IOUG will handle the database track, said Kaplan.

But while the groups will each focus on their core technologies, attendees will also be able to discuss common issues, said John Matelski, deputy CIO for the city of Orlando and executive vice president of Quest. He added that the conference will give the user groups a chance to "begin working toward a unified voice on topics of interest."

Matelski said the user groups will continue to hold separate regional meetings but will make the combined conference their only global event. "There are clearly economies of scale to be gained for the user groups and Oracle by consolidating the [existing] conferences," he noted.

But Steven Hughes, the OAUG's executive director, said the decision to hold a single conference was more about the breadth of information that could be offered to users than any financial considerations.

SAP said the U.S. version of its Sapphire show will remain separate from the annual conference held by the Americas' SAP Users' Group. But the two events will be held during the same week next May in Orlando.

SAP is studying whether it should also collocate Sapphire and user group conferences in other parts of the world, said William Wohl, a spokesman at SAP America Inc. in Newtown Square, Pa.

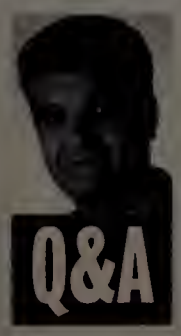
It may not make sense in regions such as Europe, "where there's more of a country-by-country focus," Wohl said. "But it's something we're certainly willing to consider if there's demand."

– Marc L. Songini, with John Blau of the IDG News Service

Smaller Arrays, Open-source Cut IT Costs at Ameritrade

BY LUCAS MEARIAN

Ameritrade Holding Corp. CIO **Asiff Hirji** *spoke with* Computerworld *last week about the company's consolidation with Datek Online Holdings and its efforts to slash IT costs by replacing high-end storage arrays with midrange equipment and using open-source technologies.*



What are your greatest challenges these days? One, I'm trying to create additional functionality that takes complexity out of trading. Second, some of the vendors we work with simply don't get where they need to be on a cost/performance scale. So we're throwing them out and replacing them with people who get it. Third, I'm trying to cope with the volume of demand. That's the constant battle.

You say some vendors aren't getting where they need to be on the cost vs. performance scale. How is that different today from two or three years ago? My personal belief is something like 90% of all databases out there right now could be replaced by open-source because most of the database applications that exist are very simple databases with a thin-layer application on top that says, "Do a query, or do an insert." You don't need the hundreds of thousands or millions of dollars in an Oracle implementation or Siebel or anyone else to do a lot of that stuff.

We've [also] done things like replace the highest-tier-type storage systems with more midtier storage systems, because the performance in the midtier storage systems has come to the point where, for our needs, they do what we need them to do. We don't need to spend the additional money on the high-end systems.

How much money have you saved by replacing the high-end arrays? I can't really give you a number, but on a systems-by-systems basis, the new systems cost less than half what the old systems have.

The Datek acquisition took place two years ago. How has that conversion effort gone? It's been done for a year and a half. We managed to keep something like 96% or 97% of the Datek client base. We basically copied the experience they had on Datek onto our platforms by playing Lego with some of the systems and integrating a lot of the Datek technology onto our platform.

Where did most of the cost savings come from? Whacking out tons of cost from the infrastructure. Every dollar I invest in storage is a dollar I could have used in developing the next cool [trading] tool. **54214**

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FRANK HAYES ■ FRANKLY SPEAKING

Blackout

WHERE WAS IT? On Saturday, April 30, the Pentagon released an unclassified version of its report on a March 4 incident in Baghdad, in which an Italian intelligence agent, Nicola Calipari, was shot and killed by U.S. troops at a checkpoint. The unclassified document was an Adobe Acrobat file, with sections containing classified information blacked out. But for anyone who downloaded the document, discovering what was behind that electronic black ink was trivial. If fact, it was practically unavoidable. And by Monday, that classified information was everywhere.

So where in blazes was IT?

Protecting confidential data in electronic form is certainly part of IT's job. The software that military censors used to black out those documents came from IT. IT should have made sure everything worked as planned. Instead, sensitive information such as military rules of engagement became public knowledge.

Let's be clear: Breaking through the black ink over that classified text didn't require hacking through encryption or using some special tool. If a reporter simply opened the file using the standard version of Acrobat Reader, then cut and pasted the text into any word processor, the blacked-out text would reappear.

And reporters don't like retyping if they can simply cut and paste. Besides, cutting and pasting guaranteed that the report would be quoted accurately. So of course many of them cut and pasted and saw the classified information; they'd have had to work hard to avoid it.

And so did anyone else — friend or foe — who downloaded the report.

So where was IT? Why didn't the military censors have the right tools to remove that classified information, not just cover it up? Why wasn't a standard process followed for confirming that the classified information was removed? Those are questions the Pentagon is asking now.

They're questions people in corporate IT should be asking, too.

How often do people in your company send out sensitive information, thinking it's not there because they can't see it? Every time they e-mail a Word document. Or an Excel spreadsheet, or PowerPoint presentation, or documents in any of a variety of other formats. Those users may have deleted that information from the visible document, but it might still be in the file.

It can't always be made visible with a simple cut and paste. But it's there. And with a little effort by an unfriendly party, it can be seen.

Maybe you knew that. But your users probably don't. So your company's salesmen, marketing people, lawyers and public relations reps may be revealing sales quotes, product plans, legal strategies and other information they don't intend to. Executives may be giving away business strategy or closely held financial data.

Where *is* IT in all this? Protecting this stuff is what we do. We should be front and center, helping users to avoid leaking secrets. Sure, we also have to deal with worms and hackers and other threats. But we can't let users fall through security cracks — especially when that's exactly what users are trying hard *not* to do.

So talk to your users, especially the ones who send documents outside the organization. Explain the problem. Suggest work-arounds, such as converting documents to a different format and then back to the one they prefer. Listen to their objections. Work with them to find a practical way they can use to protect their confidential information.

This time, IT isn't the users' enemy, enforcing security rules they don't like. We can be their ally, helping users protect information they don't want to make public.

For once, we can stand shoulder to shoulder with users on the front lines of information security.

Which is right where IT should be. **54204**

FRANK HAYES, *Computerworld*'s senior news columnist, has covered IT for more than 20 years. Contact him at **frank_hayes@computerworld.com.**

There's Always a Reason

This pilot fish's boss is technologically, um, a little slow. "He used Microsoft Works to print out some information for a customer," fish says. "Then he brought it to my office, asked me to scan it and save it as a PDF file as well as using OCR to create a Word document, then print out the PDF and snail-mail it to the customer. It was quicker to just do as he asked than to explain the flaws with this approach."

SHARK TANK

Aha!

This company monitors Internet usage closely, and when one employee's numbers are much higher than average, management investigates. "He explains he needs it for his job," says a pilot fish in the know. "His job? Webmaster."

Instant Answer

Manager tells consultant pilot fish he can't see the point to instant messaging. Why can't users just send e-mail? "I asked him when was the last time he replied to all the e-mails in his in-box in a single day," fish reports. "He quietly ended the discussion."

So Help Already!

"The furniture guys just dropped off the boxes, and I need you to come up and assemble my desk," new hire tells support pilot fish. Why don't you call the facilities department, baffled fish asks. User: "Well, your extension is listed as the help desk . . . "

Who's on First?

Sales guy calls pilot fish, asking if he's the person putting all the sales presentations on a CD for an upcoming meeting. Yes, fish says. "Will you put mine on the CD first?" sales guy requests. "I have to leave the meeting early." But I'm not setting the agenda, fish points out, just putting the files on a disk. "I know," sales guy says. "But they always go in the order the files are on the CD."

Thanks, I Guess

Sysadmin pilot fish gets 3:30 a.m. call from user who can't log into his system. Fish is baffled by user's problem – until he realizes it's not one of fish's systems. "Turns out he worked for another company," fish says. "But he'd heard from a friend how good a tech-support guy I am, so he called me instead of his support guys."

Eccentric?

My new keyboard suddenly stopped working, user tells pilot fish. What kind is it? fish asks. "She responded, 'I don't know what brand, but it's origami,' " says fish. "It took me about five minutes to figure out what she was talking about – she meant *ergonomic*. After I managed to stop laughing, she asked me, 'So, do you know anything about organic keyboards?' "

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